

EPIC
SYMPOSIUM

2019 EPIC SYMPOSIUM



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Welcome and Introduction

Laurie ten Hope

Deputy Director, California Energy Commission



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Opening Remarks

Dr. Robert B. Weisenmiller

Chair, California Energy Commission



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Feb. 19, 2019



SOUTHERN CALIFORNIA
EDISON
An EDISON INTERNATIONAL® Company



Opening Remarks

Robert Weisenmiller, Chair, California Energy Commission

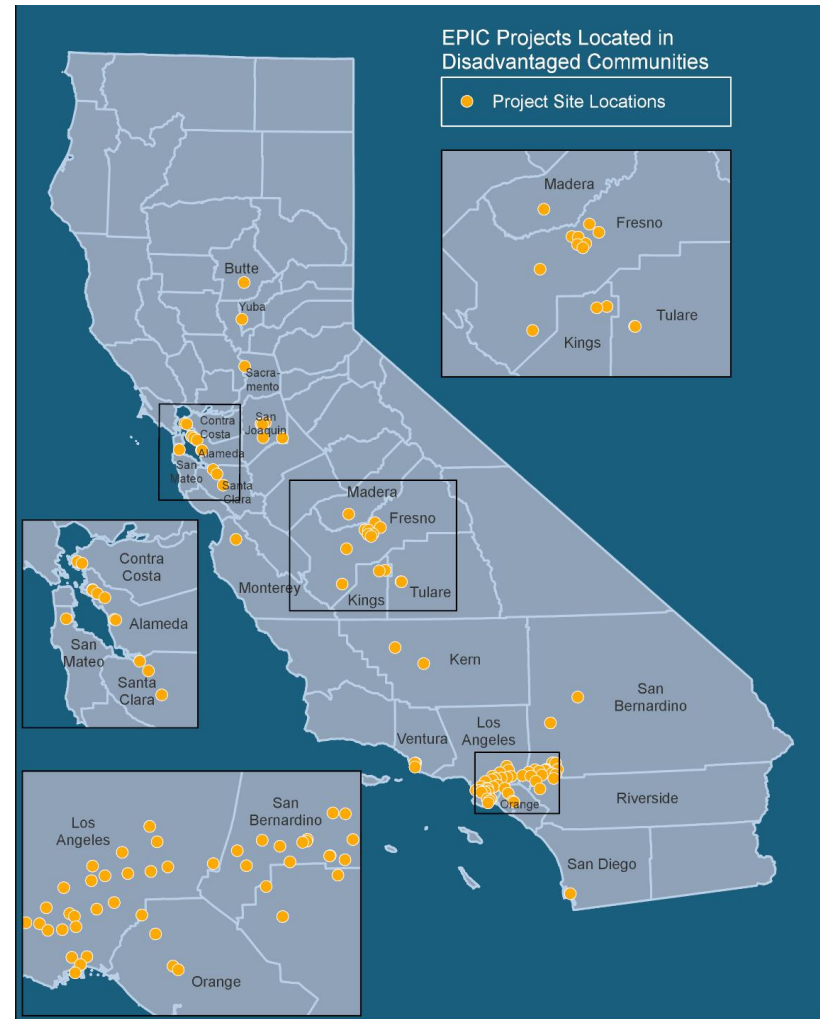




EPIC Opportunities to Advance Clean Energy Access, Investment, and Resilience in California

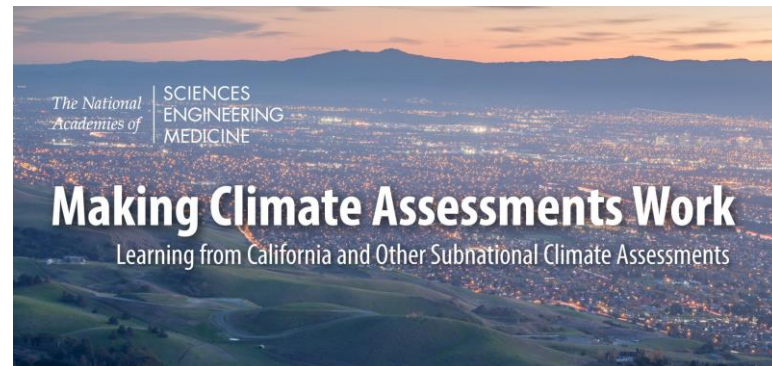
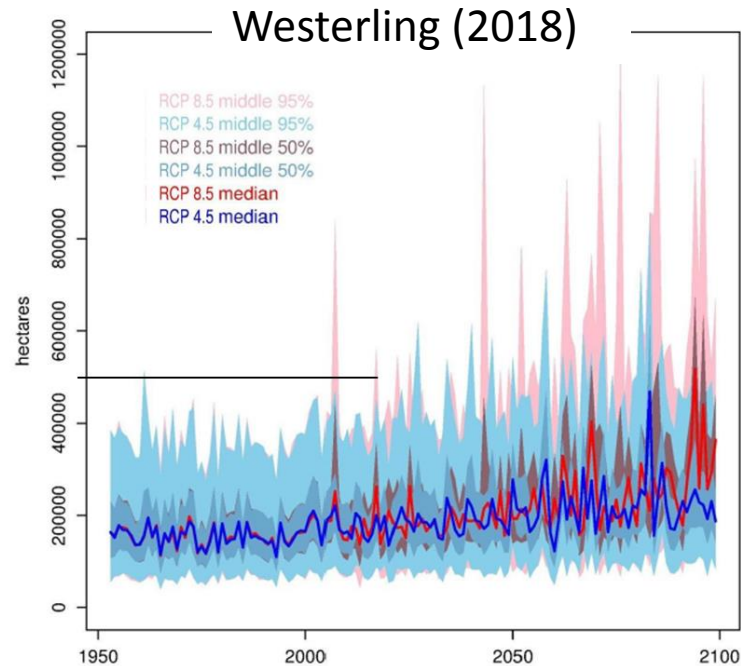
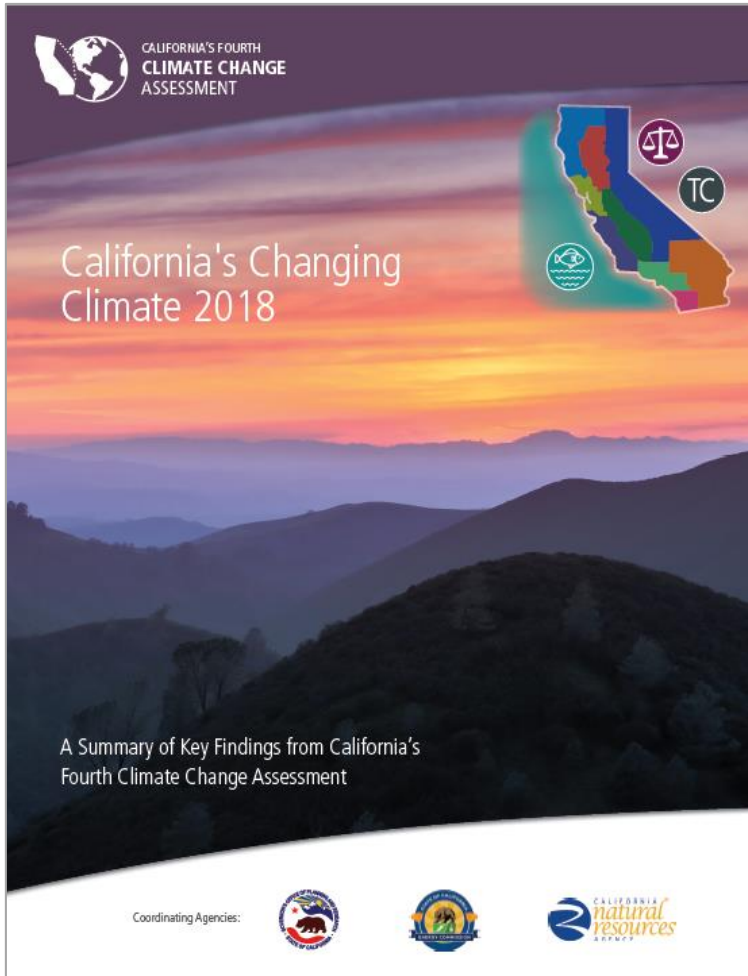
Through 2018, the Energy Commission funded 304 EPIC project awards, encumbering \$651.5 million.

More than 30 percent of Energy Commission EPIC demonstration projects are in disadvantaged communities.





CEC, CNRA, OPR and Regional Volunteers Advance Science for Climate Adaptation





Building a Safe and Resilient Energy System

The successful performance of the Blue Lake Rancheria microgrid in an actual emergency provides further evidence that microgrid technology can play a key role in building a more resilient electricity system.

Photo: Blue Lake Rancheria





Improving the Affordability, Health and Comfort of California's Communities

Customer Centric Retrofits in Ontario



ZNE Multifamily Evaluation-
Cloverdale and Calistoga



Smart Ceiling
Fans with
Communicating
T-Stats

Customer Centric Retrofits in Fresno



Affordable ZNE Approaches with
Habitat for Humanity



Enabling a More Decarbonized and Decentralized Electric Grid



Photo: Sunfolding

Results from an EPIC-funded field demonstration have helped Sunfolding make the first sales of the AirDrive™ technology for agricultural sites in Madera and Fresno Counties for lighting, water pumps, irrigation, and other high-energy-use systems.



Advancing Low-Carbon Transportation Technologies

During this pilot demonstration, the drivers realized a 45 percent reduction in their charging cost when using the managed charging schedule, which resulted in an average \$467 annual savings.



Photo: ChargePoint, Inc.



Supporting California's Local Economies and Businesses

To date, start-up companies in the CalSEED program have attracted \$45.1 million in private investment, and \$9 million in public funding.

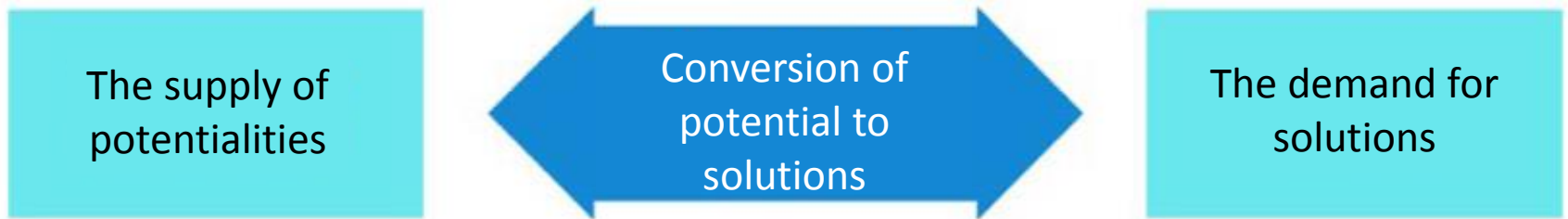


Photo: CalSEED



Looking Ahead: Growing Tech Transfer from Lab to Market

Three Pillars of Energy Innovation



“For companies to be willing adopters of a clean energy technology, the technology needs to solve a problem big enough to make the effort and cost of adoption worthwhile.”

Source: Moniz and Yergin, February 2019,
Advancing the Landscape of Clean Energy Innovation,
Breakthrough Energy

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Morning Keynote Address

Senator Henry Stern
27th Senate District



Thought Leaders Fireside Chat

Moderator: **Dr. Danielle Applestone**

Presenters: **Dr. David Danielson, Dr. James Zahler**



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Now Beginning Morning Breakout Sessions

Please refer to <https://www.energy.ca.gov/calendar/index.php?eID=3183> for WebEx information



Electrifying Buildings

Moderator: **Panama Bartholomy**

Presenters: **Theresa Pistochini, Dr. Paul Raftery, Bryan Dove, Cathy Higgins, Ryohei Hinohuma**





“Mutual Housing California develops, operates and advocates for sustainable housing that builds strong communities through resident participation and leadership development.”



Mutual Housing at Spring Lake



Mutual Housing at Spring Lake

Electric Stove, High Efficiency Lighting, Ceiling Fans



Daikin
Altherma
Heat Pump
Water Heater
& HVAC



R-21
Insulation

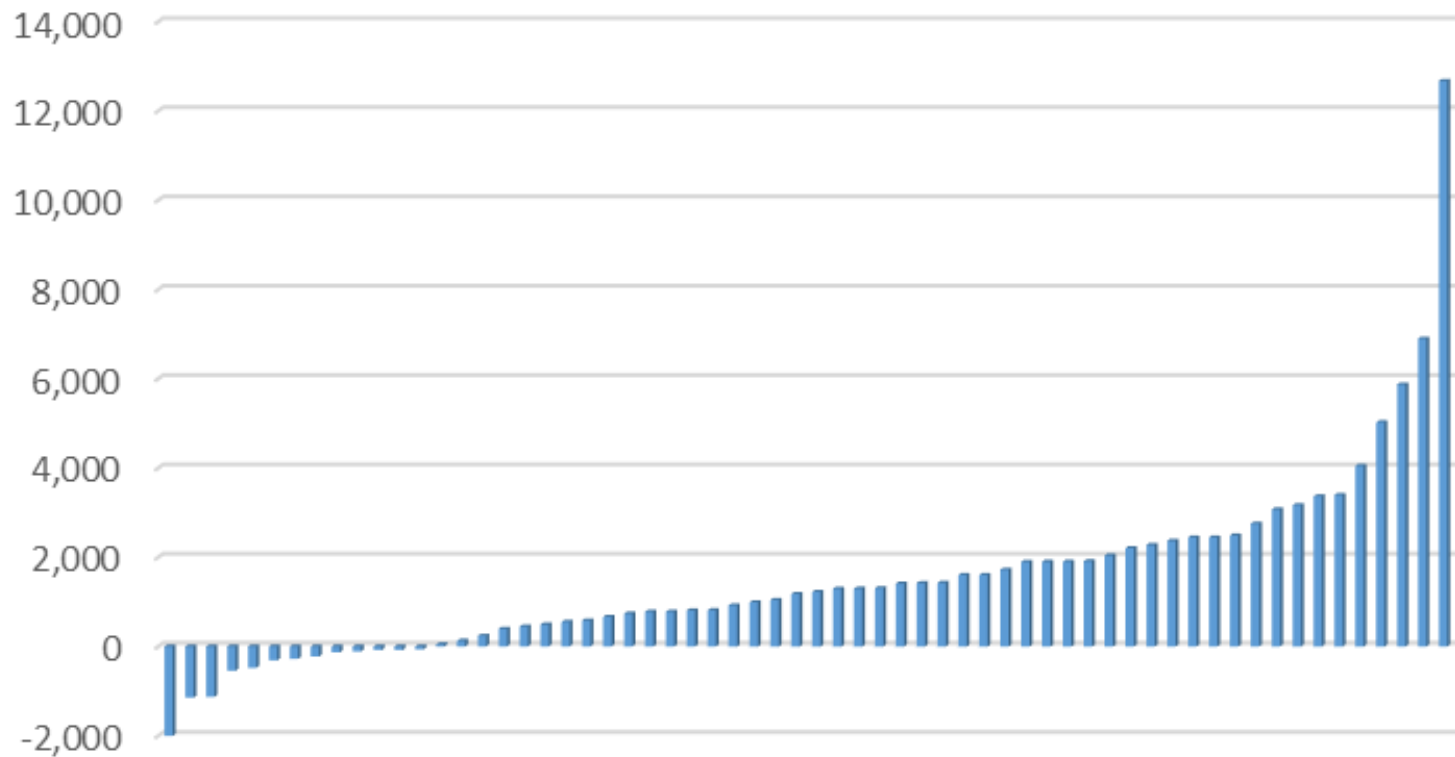




Mutual Housing at Spring Lake

Zero Net Energy Performance

2018 Annual Net Energy Consumption





VanDusen Botanical Gardens Visitor Centre, Vancouver, BC | Credit: Nic Lehoux

CEC EPIC Symposium

February 19, 2019

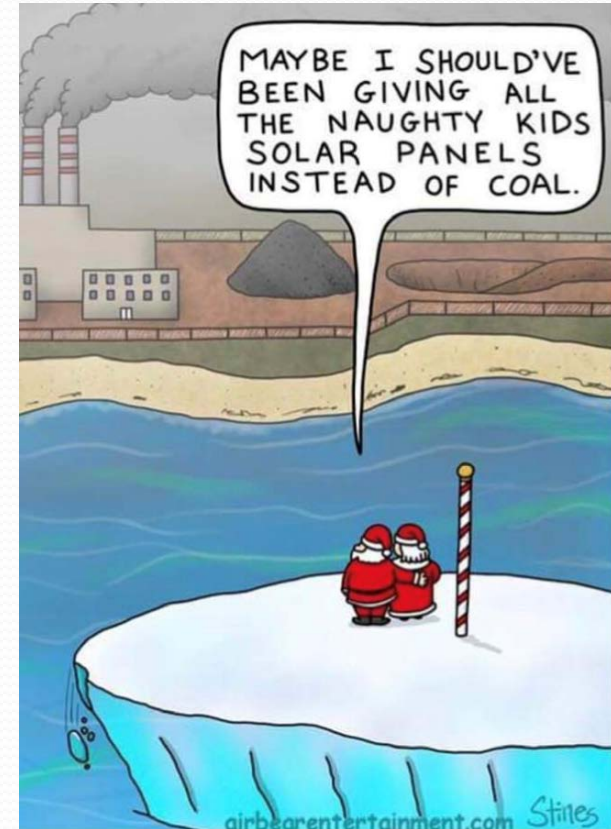
Cathy Higgins, Research Director, NBI

nbi new buildings
institute

4 Points in 5 minutes:
Data and Trends for Electrification

But building electrification is a critical step to support GHG reduction goals

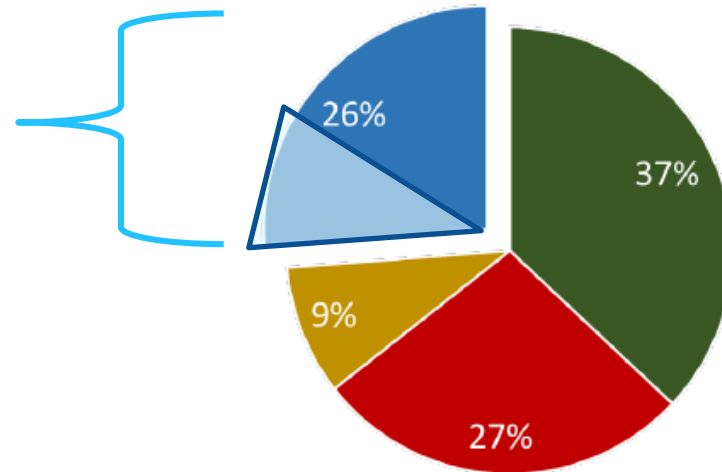
- ~**50% of the electricity** generation in CA is from Natural Gas
- Gas will be a **part of the fuel mix** for decades
- Increasing attention to **embodied carbon** in materials
- All electric buildings **help the grid** to utilize excess renewable generation
- **Today** we are addressing electric technologies @ the building





CA GHG Emissions

10% of CA GHG emissions are from direct use of Fossil Fuels in buildings

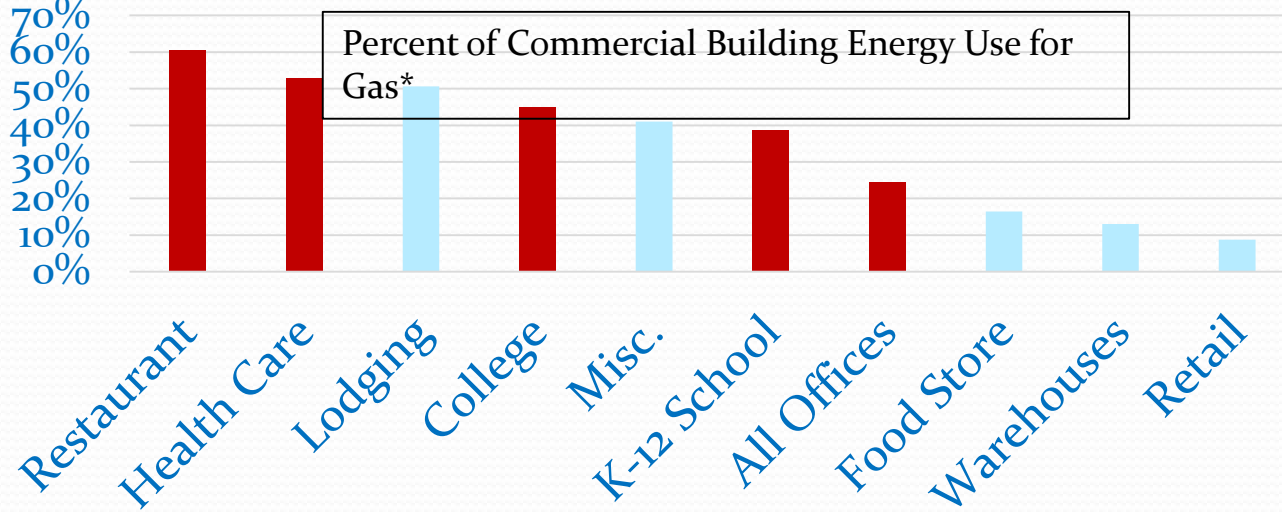


■ transportation ■ industry ■ agriculture ■ buildings

2) Gas use varies widely – know the data

Average total energy use that is Natural Gas:

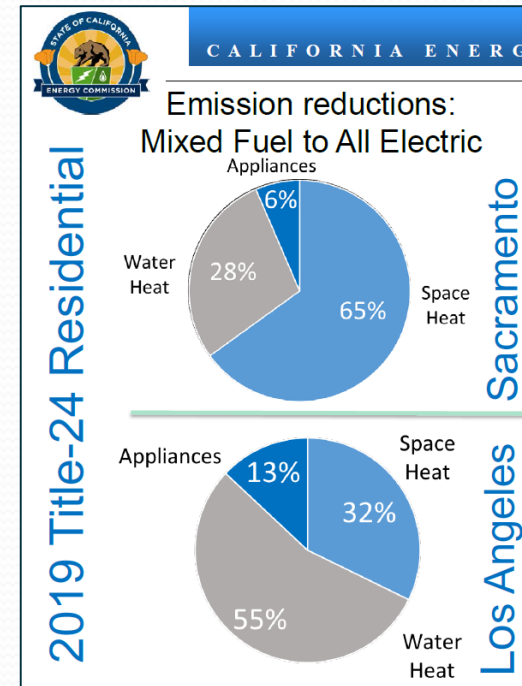
- 48% across all CA buildings | 30% in commercial | 70% in res.



Source: 2006 CEUS-Itron

Data

*Red Columns: Top 5 building types by total use of CA Commercial Sector gas - together these are **54%** of the Commercial Sector use of gas



Also varies by location/climate

3) Zero Energy buildings demonstrate all-electric

15 CA all-electric ZNE Commercial Buildings¹

Building Name	CA City	Size (sf)	Building Type
435 Indio Ave	Sunnyvale	31,800	Office
AP+I Design	Mountain View	14,300	Office
Audubon Center at Debs Park (off grid)	Los Angeles	5,020	Other
Bagatelos Architectural Glass Solutions	Sacramento	63,000	Manufacturing
Bishop O'Dowd High School, Environmental Science Center	Oakland	3,275	K-12 School; Secondary School
David and Lucile Packard Foundation	Los Altos	49,161	Office
Diamond X Ranch Student Intern Center-Malibu	Calabasas	3,500	Visitor Center
DPR San Francisco Office	San Francisco	24,010	Office
Environmental Nature Center	Newport Beach	8,535	General Education
Environmental Tech. Center Sonoma State	Rohnert Park	2,200	Higher Education
IBEW Local 595 Zero Net Energy Center	San Leandro	45,001	General Education
IDEAs Z2 Design Facility	San Jose	6,557	Office
Plaza Point	Arcata	20,283	Multifamily
Sacred Heart Schools Stevens Family Library	Atherton	6,800	K-12 School; Primary School
West Berkeley Public Library	Berkeley	9,399	Library

¹Source: NBI Getting to Zero Database

- 50 all-electric ZE commercial buildings¹
 - Schools – 46%
 - Offices – 28%
 - Public Assembly – 12%
- Site end use areas that are 75-96% gas in CA res./comm. buildings:²
 - Space heating
 - Water heating
 - Cooking

²Source: M. Brook, CEC Decarbonization pres. 6/2019

4) Zero Carbon policies and metrics are trending



- Policy barriers
 - EE programs are kWhs not CO₂
- Zero carbon code proposals
 - a) Phase-out of building-level combustion, b) Move to GHG metric from energy cost/site/source metrics
- Fuel switching incentives
 - Frist state - Mass. 2019
- Electric “Readiness” Requirement
 - IECC 2021 Proposal

Daikin Electrification Solutions

Ryohei Hinokuma

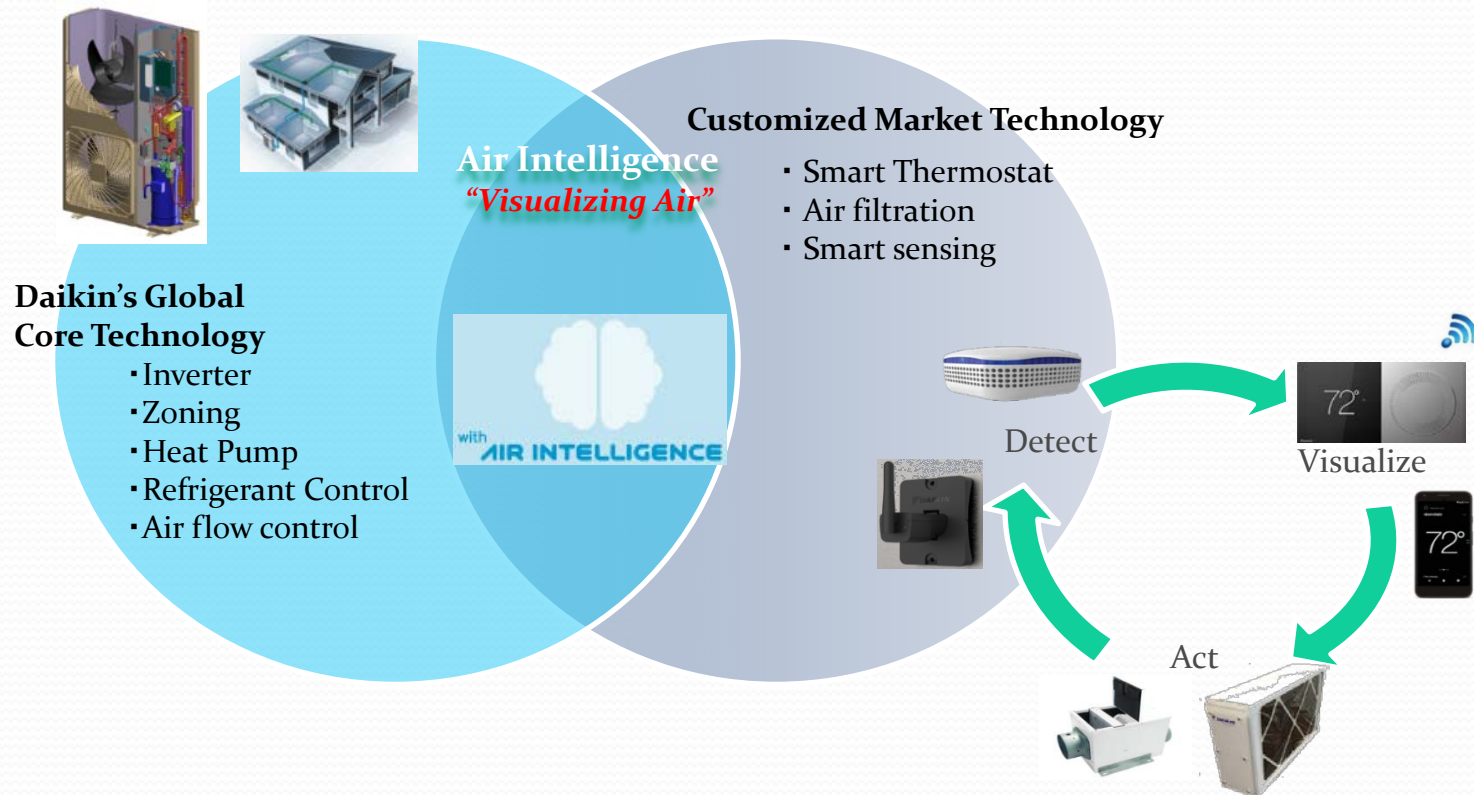
EPIC Symposium | Accelerating Clean Energy Innovation

Electrifying Buildings

@ California Energy Commission

▪ February 19th, 2019

AIR INTELLIGENCE™



Daikin Working with BlocPower for Con Edison Natural Gas Demand Reduction

Proposal Overview



☐ Project Origination

- BP Target
 - BlocPower database contains 20,000+ multifamily buildings with publicly available data
 - BlocPower will target 6,225 of the 20,000+ multifamily buildings that have 2-10 units and burn #2, #4, or #6 fuel oil
- BlocMaps
 - BlocPower customer engagement tool deployed during NYC Mayor's Office of Sustainability program Community Retrofit NYC
 - Entry point for building owners and tenants to provide data to improve preliminary project design and project economics estimation

☐ Pre-Design

- BP Project Dashboard
 - BlocPower's engineering team will use in-house engineering software to develop a preliminary model to support a retrofit scenario
 - Criteria for selecting measures will be contingent to building size, existing building systems conditions, applicability to the specific building, and impact to natural gas peak demand reduction
 - The package of measures will encompass a brief description of the proposed measures, project economics such as estimated construction cost and utility cost savings, as well as reduced peak natural gas
- Collaboration with Daikin Applied New York
 - BlocPower will present the package of measures to the building owner and introduce team members from DANY to start the bidding process and the contractors' selection for the preliminary scope of work

☐ Contractor Bidding

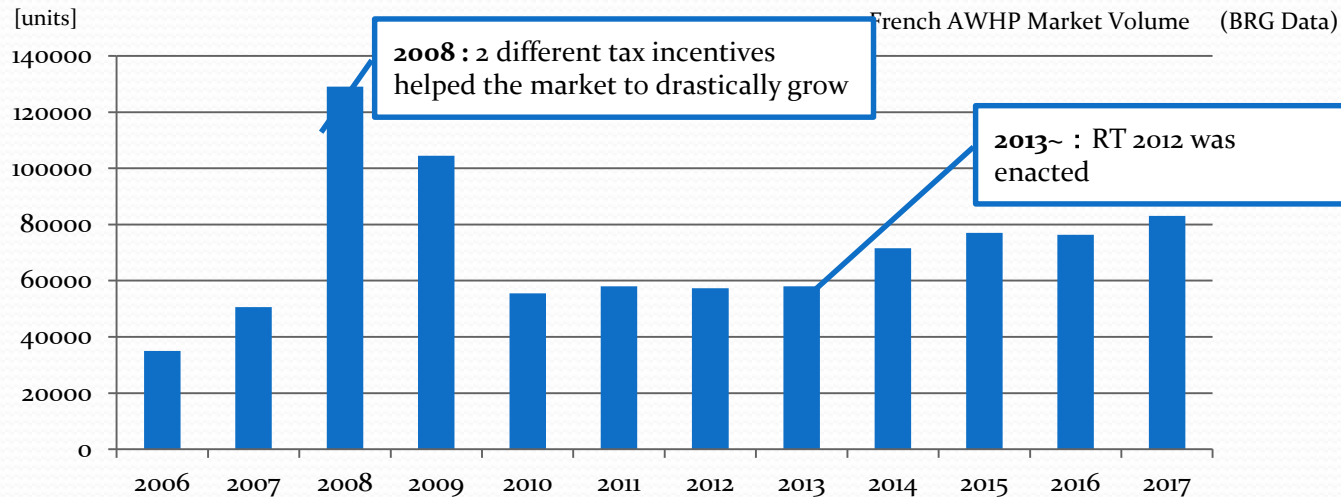
- RFP with Daikin Preferred Contractor Network

☐ Construction

☐ Measurement & Verification

- Daikin equipment commissioning
- Owner signs off on equipment installation and Energy Services Agreement

How the French HPWH Market Took Off



- The Energy Transition Tax Credit (CITE) as well as tax reduction measure toward HPs cut down purchasing prices down to less a half. The market largely expanded.
- Yet the following year was met with the financial crisis as well as reduced CITE credit, and the market started shrinking.
- Starting in 2013, the French building code, RT2012, was enacted. New homes needed to consume less than 50kWh/m² primary energy, and this helped the market to start growing back.

表3) 税制インセンティブ(CTI)の推移

年度	CITE	Tax cut	Price (%)
2003	15.0%	19.6%	64.0
2004	15.0%	19.6%	64.0
2005	40.0%	19.6%	64.1
2006	50.0%	19.6%	55.7
2007	50.0%	19.6%	55.7
2008	50.0%	5.5%	45.7
2009	40.0%	5.5%	54.1
2010	38.0%	5.5%	57.4
2011	25.0%	5.5%	66.6
2012	25.0%	7.0%	67.7
2013	22.0%	7.0%	70.2
2014	15.0%	5.5%	75.0
2015	30.0%	5.5%	62.4
2016	30.0%	5.5%	62.4

諸税制非適用時を100とした場合の各年市場価格



About the Center for the Built Environment (CBE)

- Industry/University Collaborative Research Center
- Established in 1997 with NSF support
- Sponsored by diverse group of ~50 industry partners



Photo from a semi-annual meeting for sharing results and getting feedback

2016 project: Integrating ceiling fans and thermostats for efficient comfort

Goal: Demonstrate energy savings and improved comfort

Overview

- Scope: Lab & field studies, codes and standards & design tool development.
- Timeline: 2016 - 2020
- Funding: \$2.2M from EPIC, CBE, and BAF



Smart ceiling fans

Automated speed using onboard sensors:

- Occupancy
- Temperature
- Humidity



2 – 14 Watts

Highly efficient DC motor

Almost totally silent

Thermostat integration over Wifi
Control via remote or phone app



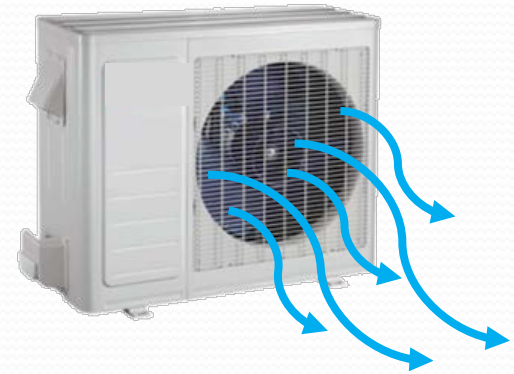
>2000 Watts

Conventional AC operation

Ambient temperature



Cooling setpoint: 74 °F



Integrated AC and fan operation

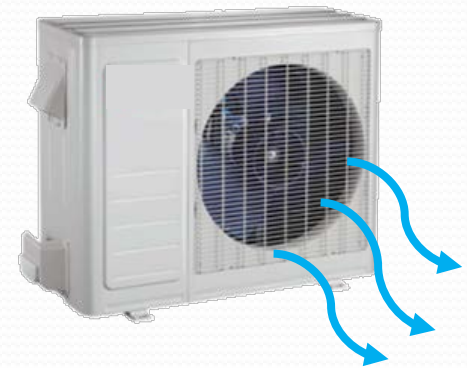


Cooling setpoint: 74 °F

Ambient temperature



Cooling setpoint: 80 °F



Field study interventions

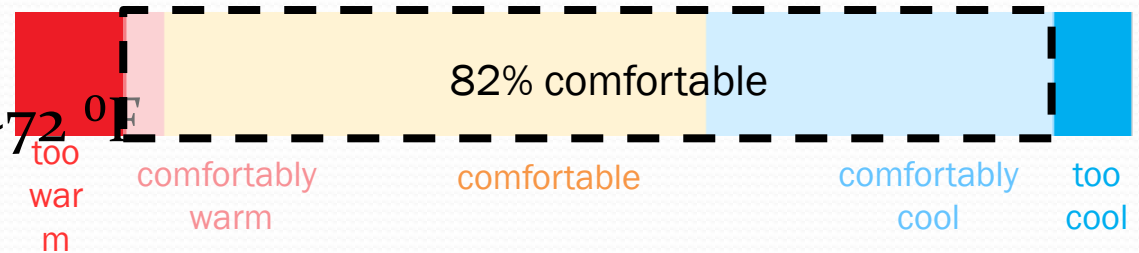
- Installed ~100 fans in existing multi-family residential buildings in the Central Valley
- Offices, common rooms, dwellings
- Measure energy use
- Survey occupants



Results from one site in Stockton, CA

Before fan install

Indoor temperature ~72 °F
(n = 29 people)

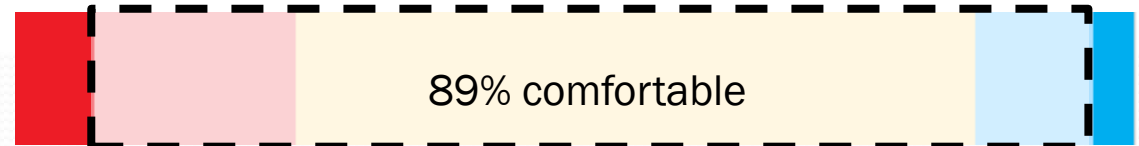


After fan install

- Cooling setpoint increased (from ~70°F to 76 °F)
- 62% measured AC savings (\$1K/month)

After fan install
and AC failed!

Indoor temperature ~ 80 °F
(n = 28 people)



Synergies with decarbonization and electrification

- Significant energy savings
- Easily incorporated in new construction or retrofit
- Reduces first cost of AC equipment
- Can shrink and shift peak electrical cooling demand

Energy efficiency isn't just
low-hanging fruit;
it's fruit lying on the ground.

*Steven Chu
Nobel Laureate (Physics)
US Secretary of Energy
2009*

Thank you
for listening

Photos of fans in new
commercial buildings
(Clockwise from top left)



Commonwealth Club
LMS Architects

Rocky Mountain Institute
ZGA Architects
PGA Engineering
Photo: S Griffen

Bullitt Center
Miller Hull
PAE Engineers

LPA San Jose Office
Photo: C Costea courtesy
LPA, Inc



Western Cooling Efficiency Center Research Update

Theresa Dickinson
Engineering Manager
February 19, 2019



Next Generation Heat Pump Testing

UC Davis Project for Electric Power Research
Institute

Sponsored by California Energy Commission

Three-phase project

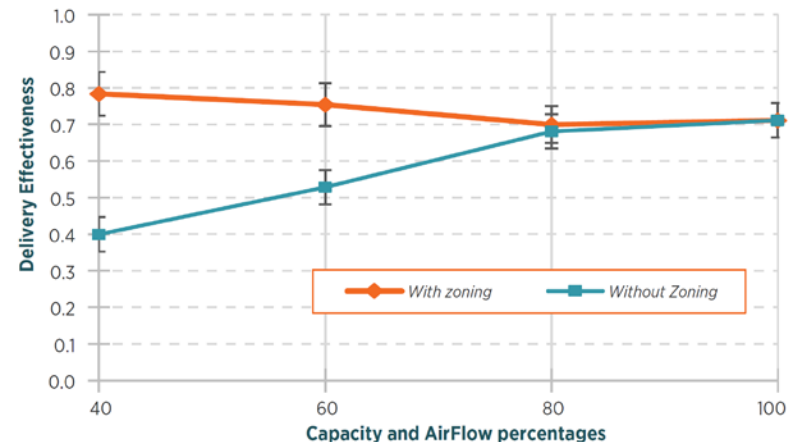
- Variable-speed, single-zone lab testing
- Variable-speed, multi-zone lab testing
- Field testing (in process)

UC Davis Objectives

- **Lab Testing of variable capacity equipment**
 - Impact of R-6 duct system in unconditioned space
 - Impact of zoning controls
- **Develop/test model of equipment and ducts**



System COP versus duct-zone temperature for different operating modes. Setting refers to capacity/airflow percentages



Low-Cost Shallow Bore Ground-Source Heat Pump

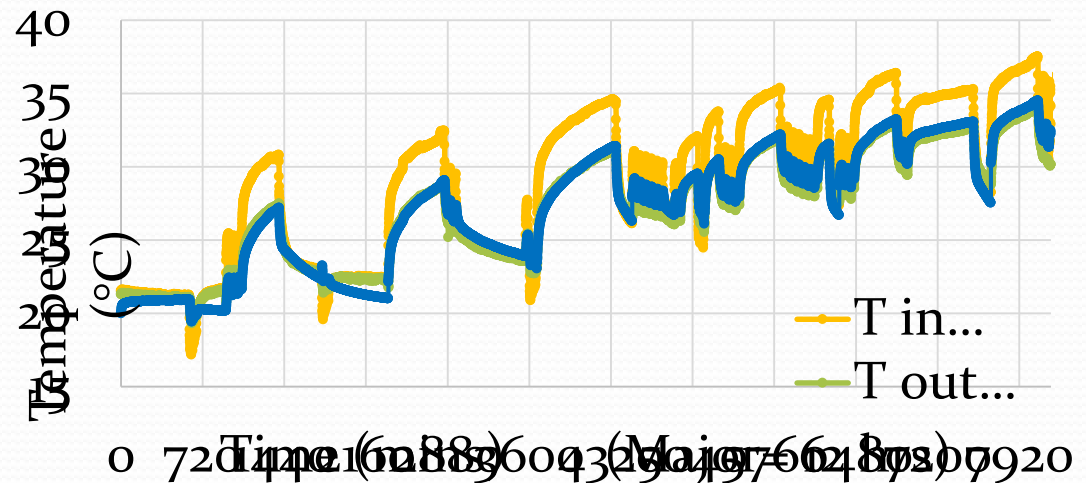
UC Davis (Prime), Frontier Energy, Whitebox
Sponsored by California Energy Commission

Overall Objective

- Develop tools to facilitate market acceptance of low-cost ground heat exchangers
 - HE design guidelines
 - Installation best practices
 - Modeling tools
- Facilitate market acceptance of GHEs
- Provide T24 compliance tools

Status

- Detailed models developed
- Lab testing this summer



Residential Retrofits

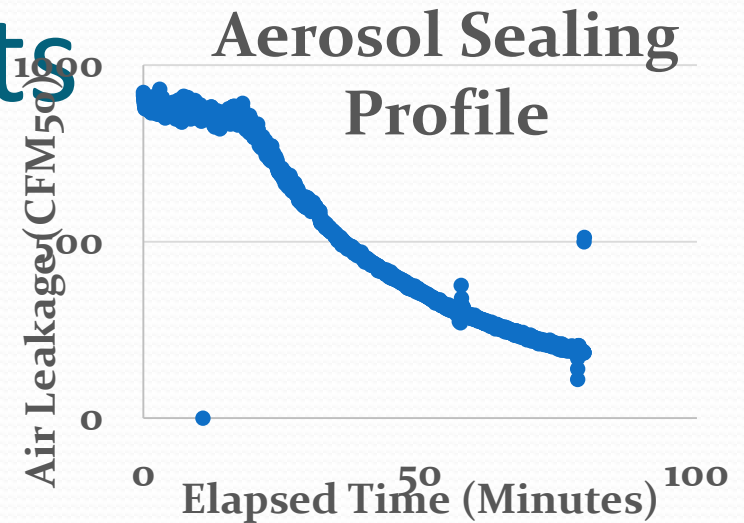
UC Davis (Prime), Electric Power Research Institute
Sponsored by California Energy Commission

Overall Objective

- » Develop retrofit packages for existing homes
 - Cooling system replaced with SWEC
 - Aerosol envelope sealing
 - Whole house ventilation
- » Measure performance
 - Energy use
 - Indoor air quality

Status

- » Baseline data collected
- » Aerosol envelope sealing completed in Fall 2018
- » Ventilation system and SWEC install in Spring 2019



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Lunch Break 11:45am – 12:15pm

Please Return at 12:15pm for Afternoon Session



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Afternoon Keynote Address

Assembly Member Eloise Gómez Reyes
47th Assembly District

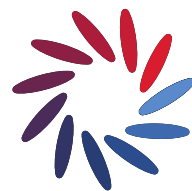
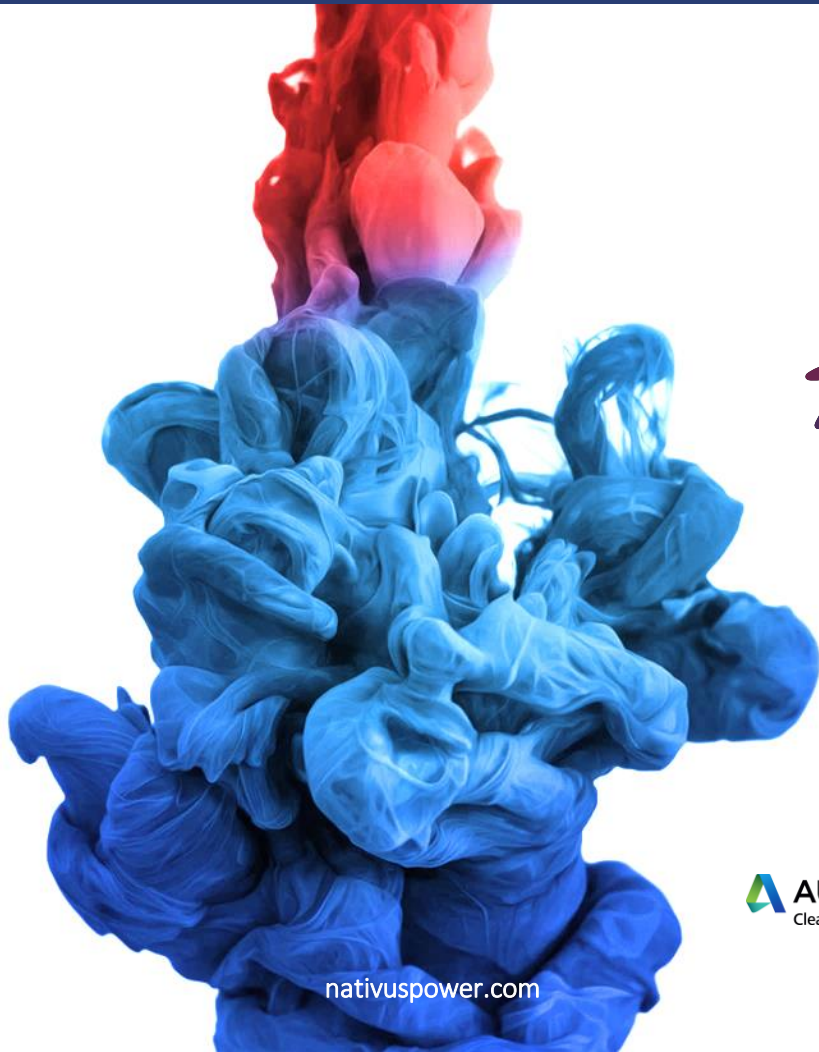


CalSEED Entrepreneur Pitch Session

Moderators: **Ian Rogoff, Debarshi Das**

Presenters: **Matt Miller, Dr. Peter Frischmann, Dr. Cheng Jin, Kim Goodrich**





NATIVUS

Hyper-Efficient Air Conditioning



nativuspower.com

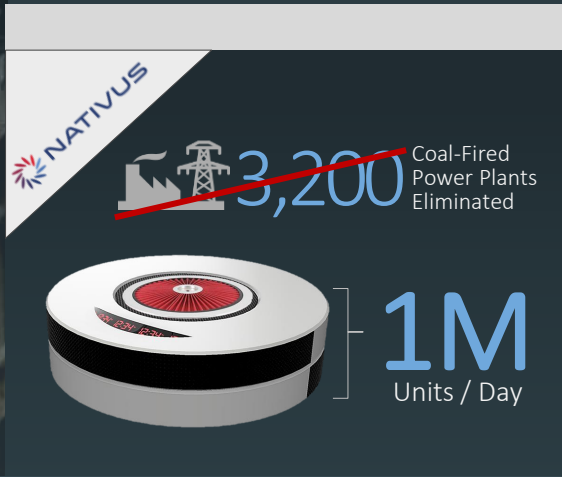
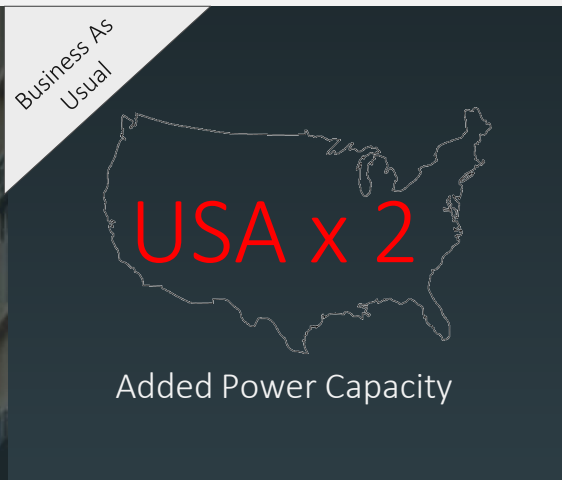
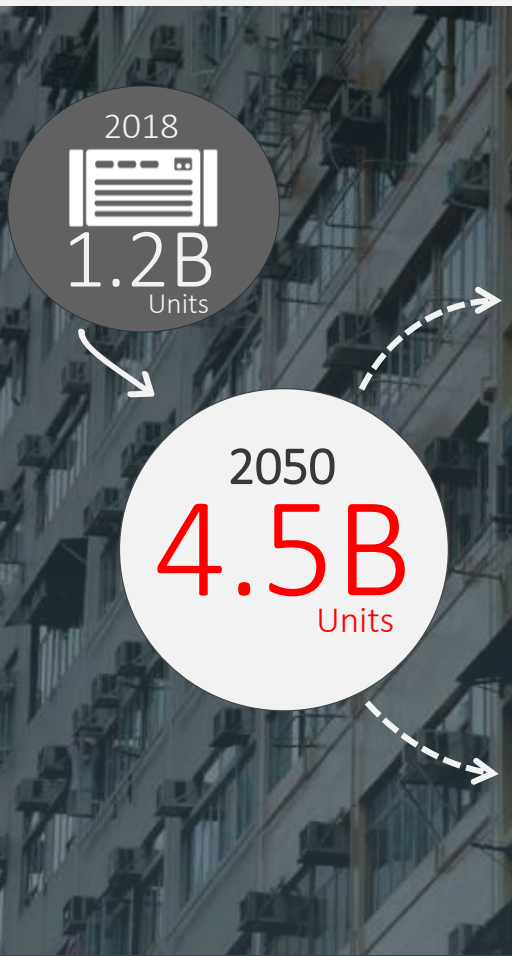
“What is the single most effective way to reduce greenhouse-gas emissions? Make *air conditioners* radically better.”

-The Economist, August 2018

Air Conditioner
5%
System Efficiency¹

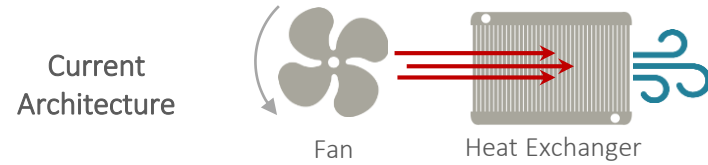


1. Based off of theoretical ultimate Carnot efficiency at standard temperatures.





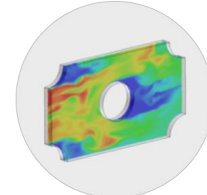
Current Problem



Performance Killers



Fouling



Boundary Layer



Condensate

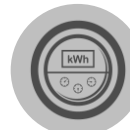
Result



Low Efficiency



Heavy & Loud



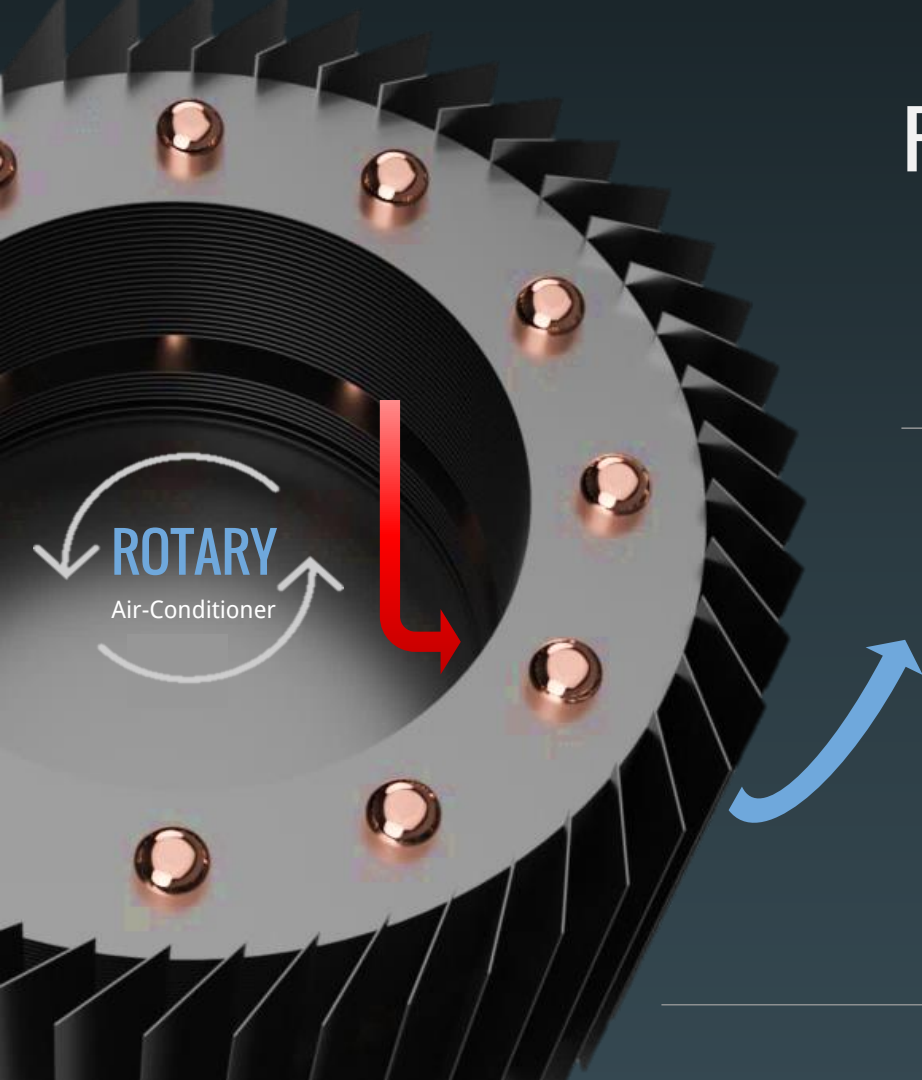
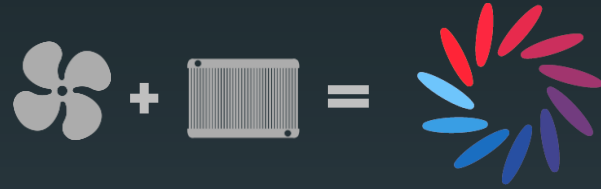
Power-Hungry



Unattractive



FAN + HEAT EXCHANGER IN ONE



Hub-Mounted
Rotary Compressor



NATIVUS ROOM AIR CONDITIONER

Focus on the Needs of the Customer



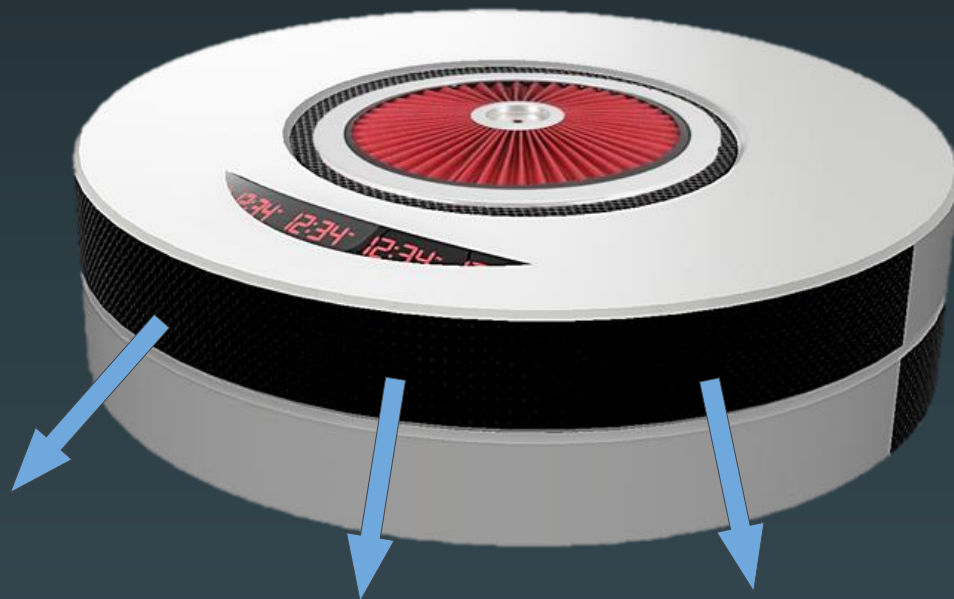
~67% Lower
Operating Expense*



Light ~12 lbs
Single-Person Install**



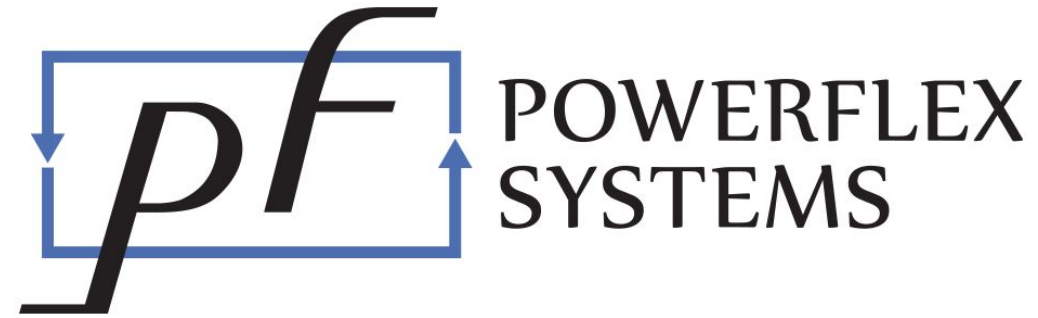
Quiet
Variable-Speed Device





Matt Miller | CEO
matt@nativuspower.com | 775.537.4611





**The Future of EV Charging:
Smart, Efficient, Universal & Scalable**



Our Team



Steven Low, Ph.D

Chairman

Caltech Professor
Co-founder of FastSoft (acq. Akamai)
BS, Cornell, PhD, UC, Berkeley



Cheng Jin, Ph.D.

VP Engineering

Co-founder of FastSoft (acq. Akamai)
10+ years leading engineering teams
BS, Case Western PhD, UM-Ann Arbor



Michael Montagano

Chief Operating Officer (advising)

15+ years tech industry experience
COO/CFO, Mopro (pre-revenue to Series D)
M&A Corporate Finance Attorney
MBA, UChicago (Booth), JD, Indiana



George Lee

Chief Executive Officer

Founding Team, FastSoft (acq. Akamai)
Engineer, Akamai
BS, MIT, MS, Caltech



Ted Lee

Lead Design Engineer

10+ years of algorithm/software dev
BS, Johns Hopkins, MS, USC



Our History & Vision



2012

research

2017

commercialization

EV Charging

Joint DER opt +
Energy Services



SBIR/STTR

CalSEED

Energy mgt research
funding >\$10M

Incubation to launch

Growth



The Challenge

California's ZEV plan

- 1.5M by 2025, 5M by 2030
- By July 2018: 400K+ ZEVs sold in CA

Workplace charging is key

- EVs are parked at work or at home
- Workplaces can install a lot more solar than homes
- Workplace (daytime charging) charging helps tame the Duck Curve

Workplace charging is currently **too expensive**

- High capital cost: to accommodate large-scale EV charging
- High operating cost: due to demand charges



The Solution

Root cause of workplace charging problem

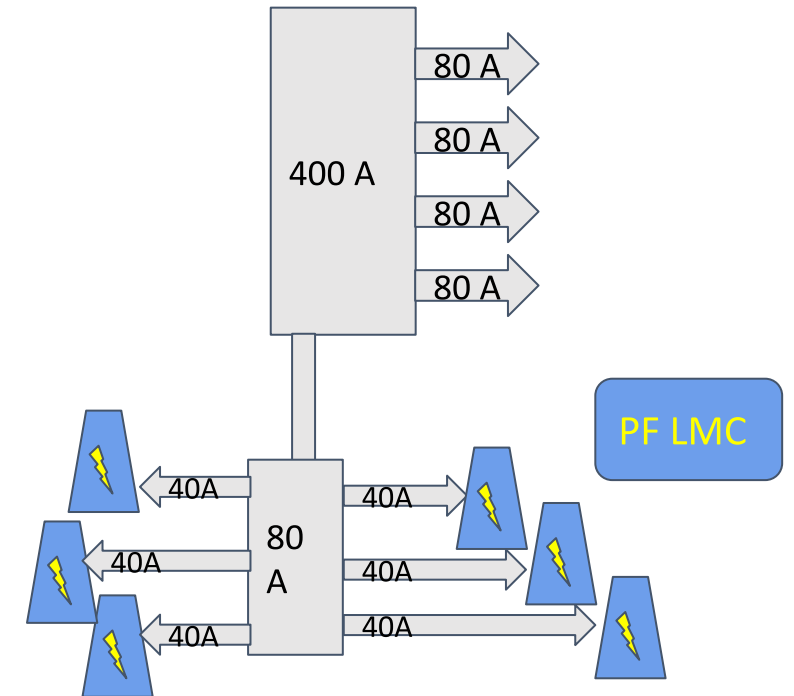
- Standalone stations with unmanaged charging

PowerFlex adaptive charging service

- Networked charging stations
- Joint optimization of all stations onsite
- ... using real-time information and user input

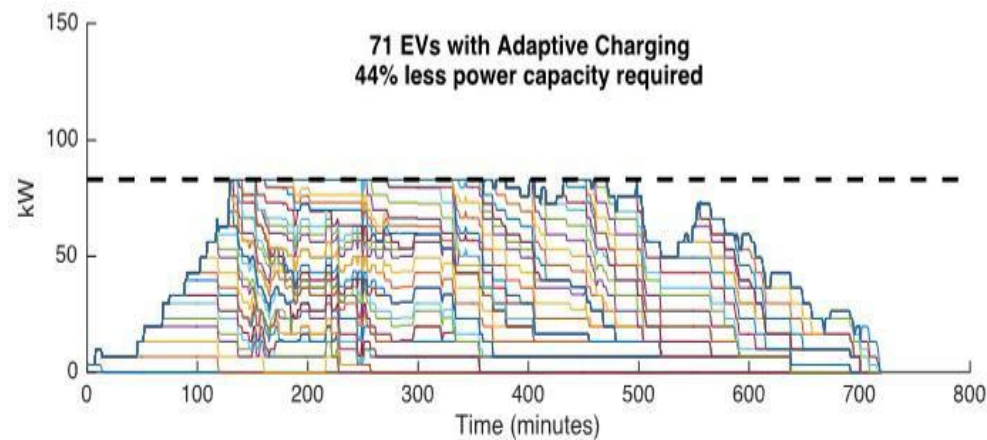
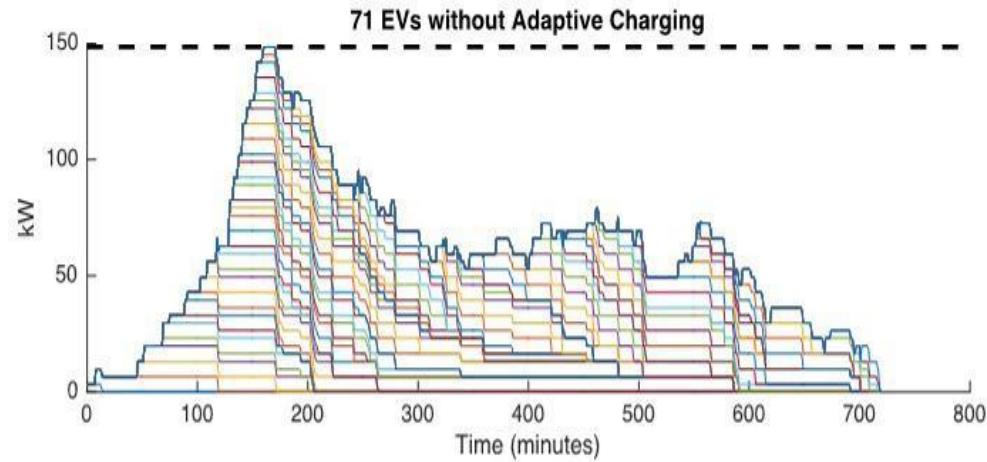
Enable large-scale EV charging at minimum costs

- Saves capital cost: minimize infrastructure capacity
- Saves operating cost: minimize demand charges





Case Study



PF minimizes peak power, reducing capital & operating costs

Daily peak power	Unmanaged charging (kW)	PF (kW)	Power savings
Caltech	85.3	33.8	60%
Mountain View	46.2	28.4	39%
Sunnyvale	94.0	56.2	40%



CalSEED Phase I Summary

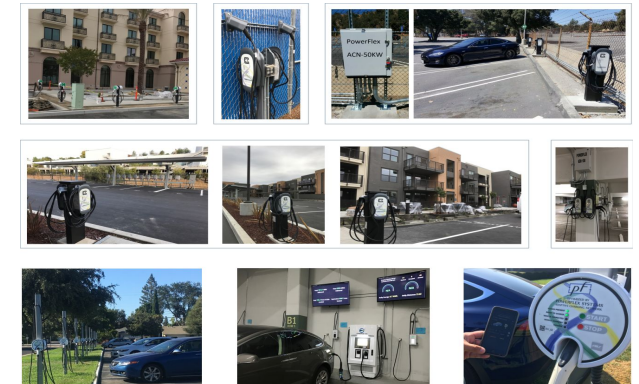
What we promised in CalSEED I application

At the end of the [CalSEED I] project, we expect:

- a) to have implemented a prototype of real-time adaptive charging software system;
- b) to have integrated the software with our current level-2 chargers and controllers deployed at Caltech;
- c) to have tested, debugged, and evaluated the performance of our adaptive charging software;
- d) to have refined our algorithms and software based on our experiments.

What we have accomplished

- . A capable smart charging product that uses real-time information to adaptively optimize Level-2 EV charging, validated and deployed at Caltech, JPL, NREL, and high schools in Bay Area





Our Value Proposition

Plug for Every Spot: Corporate HR Efficiency

- Eliminate productivity losses from changing parking locations due to EV parking time limits

Provide target charging capacity at 30%-60% lower costs

- Infrastructure costs
- Operating costs (demand charges as well as total kWh from grid)

Flexibility in implementing operator objectives

- Code compliance & infrastructure protection
- Minimum demand charge or electricity bill
- Minimum charging time, priority charging
- Jointly optimize other resources (PV, battery)



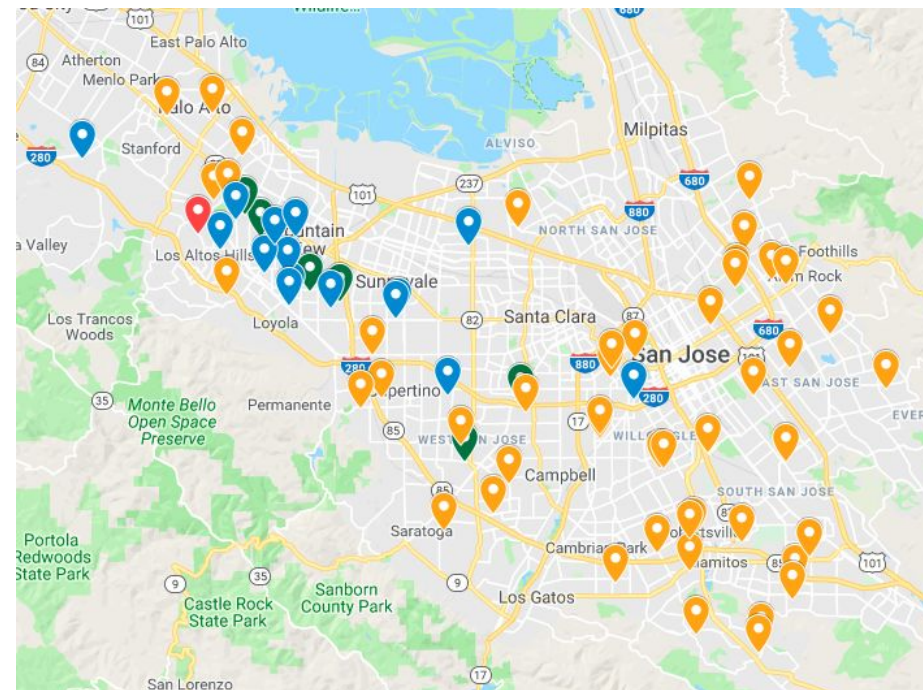
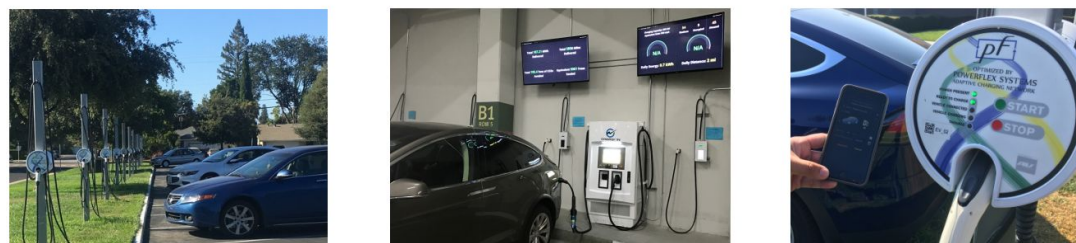
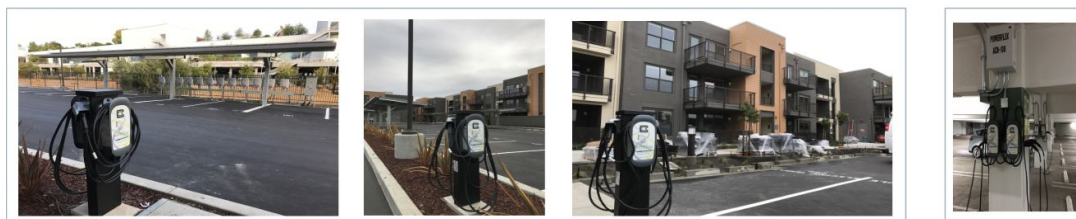
1. Highly Used:

- ~3M miles delivered



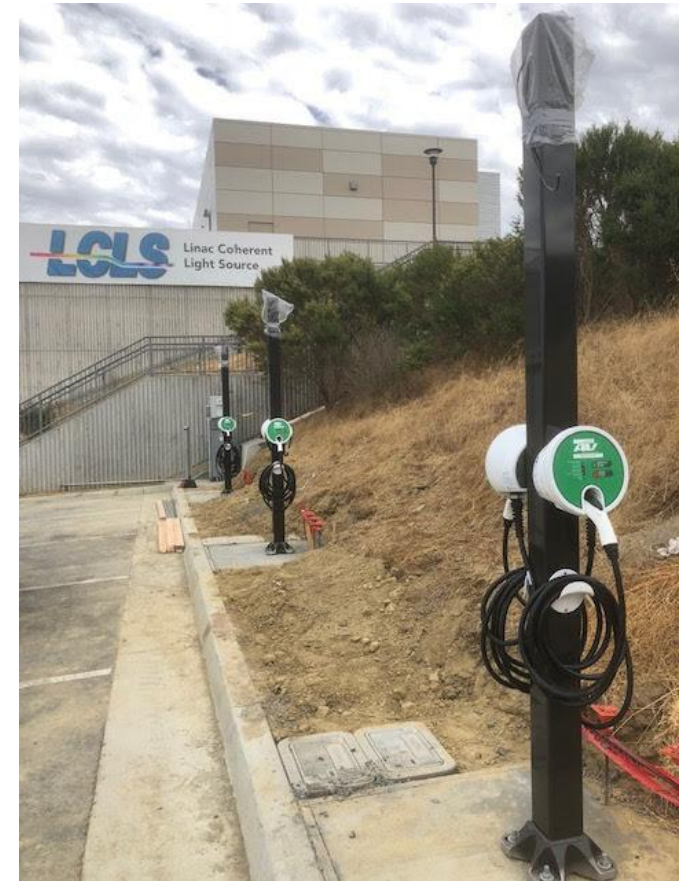
2. Highly Effective:

- \$3M+ saved in utility costs





SLAC [24 total]





Mountain View Los Altos UHSD [52 total: 52 deployed]





Ralston Apartments [72 total: 30 deployed, 42 under construction]





JPL / NASA [120 total: 52 deployed, 68 under construction]





Campbell Union HSD [248 total: 38 deployed, 210 under construction]





Future: Joint Optimization of DERs

PF will develop technologies for joint optimization of DERs

- EV charging + battery, based on real-time solar generation, building load

Build on PF platform developed during CalSEED Phase 1

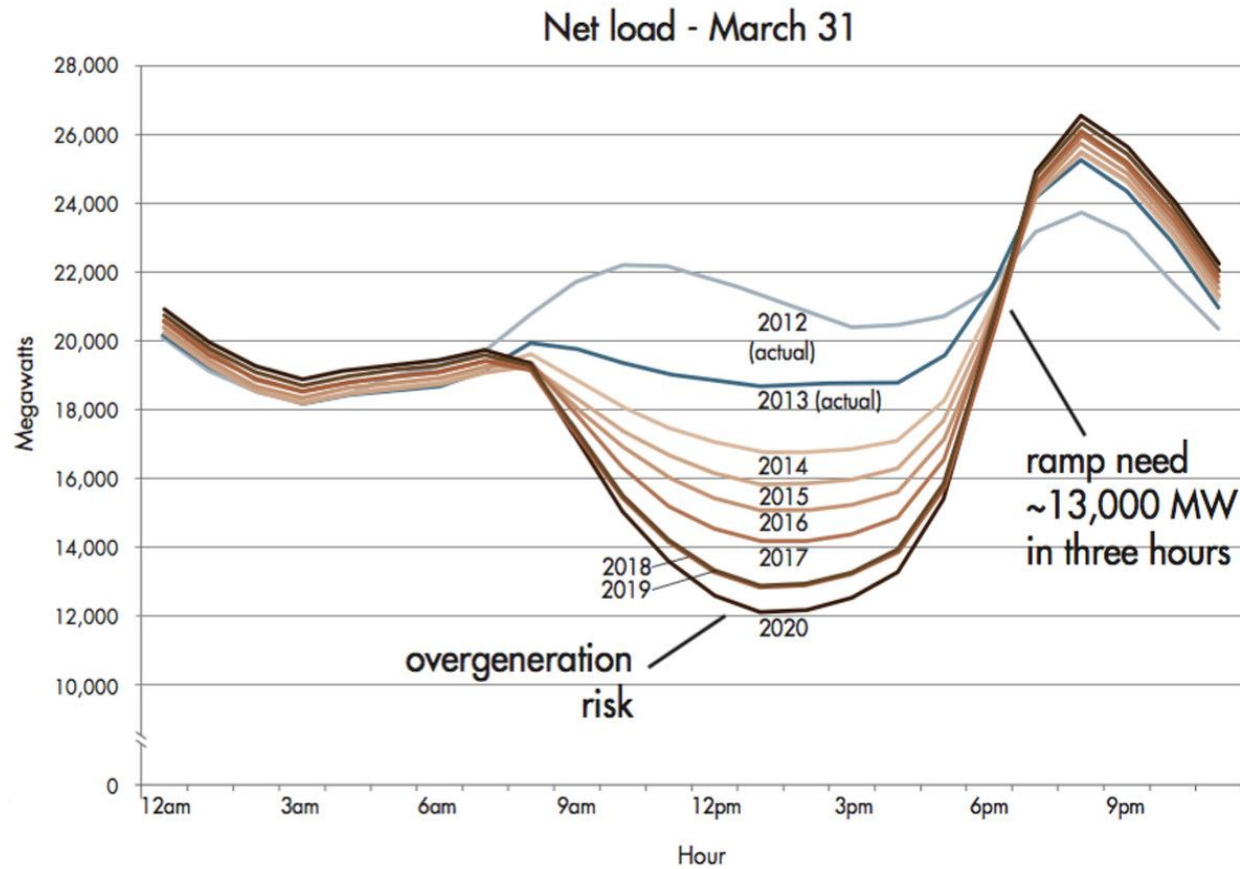
- Current platform: adaptive EV charging

Future work

- Large-scale inexpensive EV charging with demand charge mitigation
- Fill the Duck Belly



Problem: Duck Curve

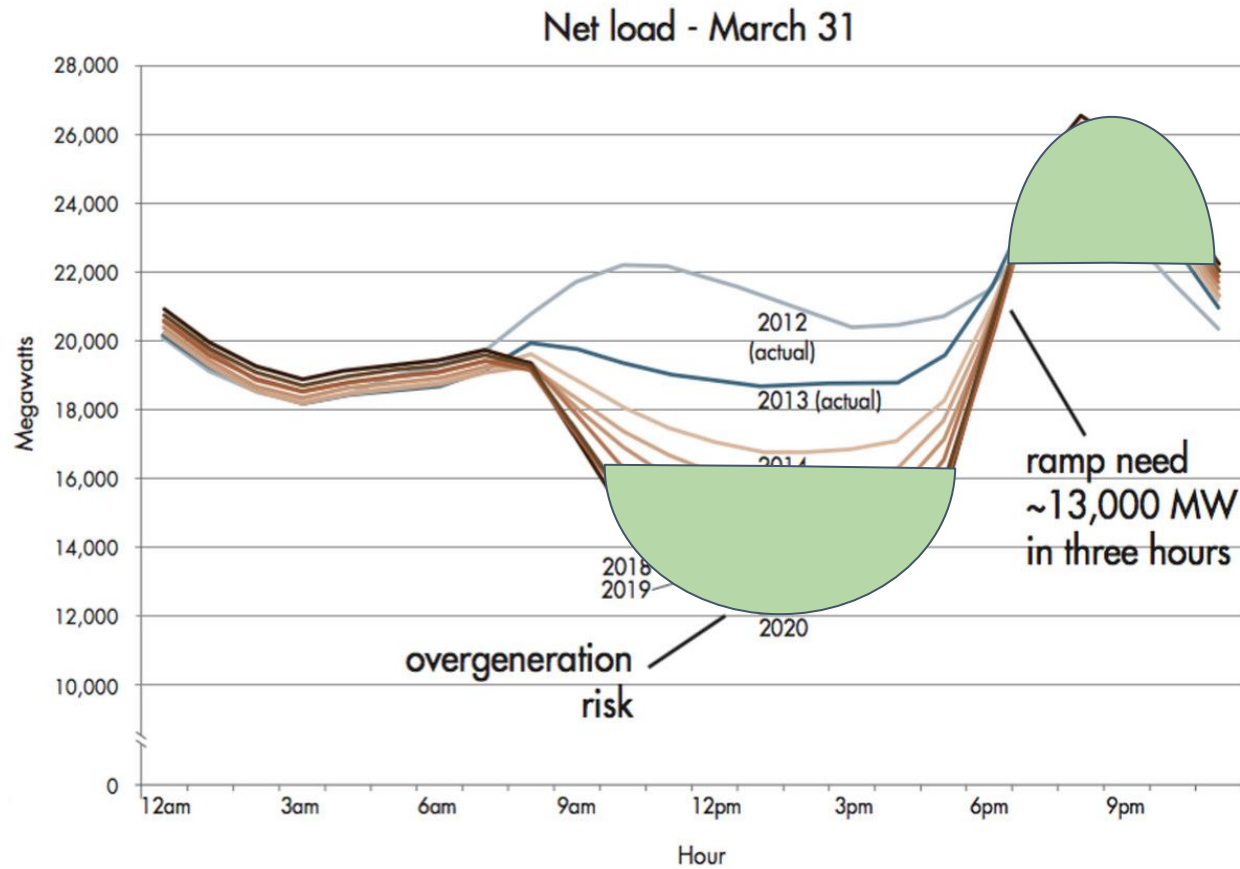


EV charging:
either a problem or a solution

- Raise the Head
- Expand the Belly



Solution: Duck Curve



EV charging:
either a problem or a solution

- Flatten the head
- Fill the Belly



Value to Ratepayers and CEC

- **Promote EV (infrastructure) growth** by minimizing CapEx and OpEx costs
- **Improve grid stability** by taming the Duck Curve
- **Expand access** to clean electricity for ratepayers





codecycle

Making buildings more efficient at the time of construction

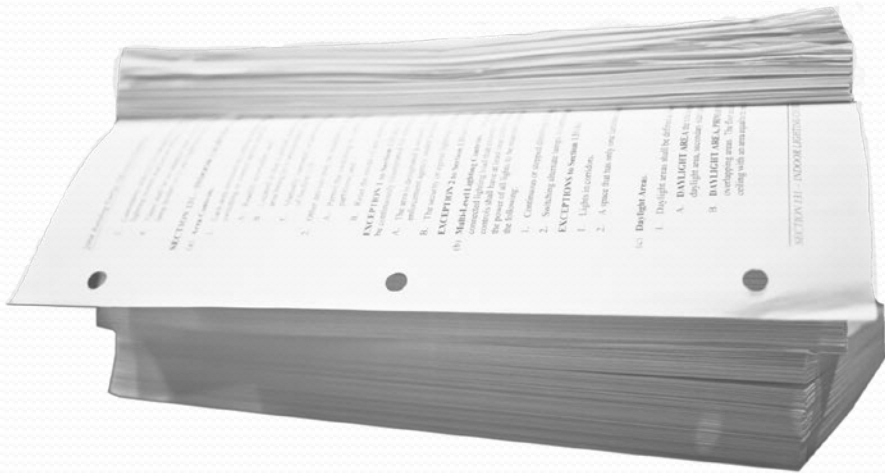
EPIC / CalSEED – Feb 2019
Dan Suyeyasu

problem

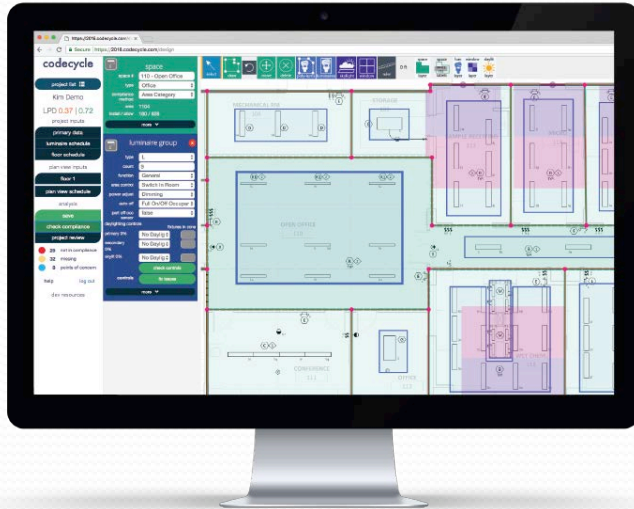
4,000 pages
and there's no TurboTax

=

15-20% energy loss
on new & existing buildings
due to non-compliance



smart energy code compliance



design

advanced energy code guidance
online tool used by design teams



construction

data-driven inspections
iPad app used by building departments

~15% energy savings

solution for cities

6 cities use CodeCycle today



stockton



modesto



davis



fairfield



vacaville



concord



impact



300+ buildings
>\$2 million

in projected utility bill savings
for California ratepayers

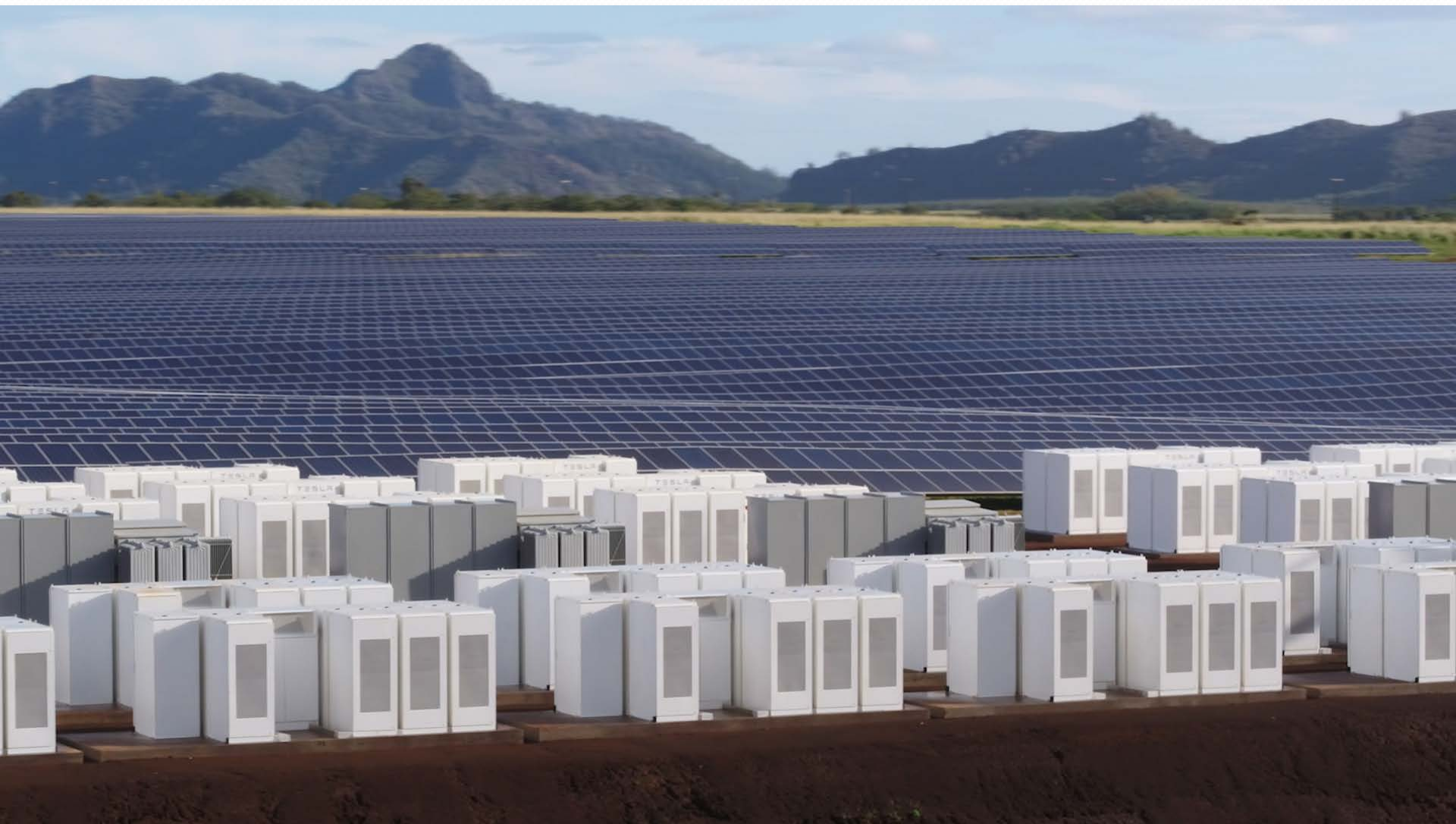
5+ buildings in Stockton

CodeCycle is already
improving energy outcomes
in California communities



Advanced Battery Membranes

Peter Frischmann, CEO & Co-Founder
pete@sepiontechnologies.com, (208)-406-9888
Emeryville, CA





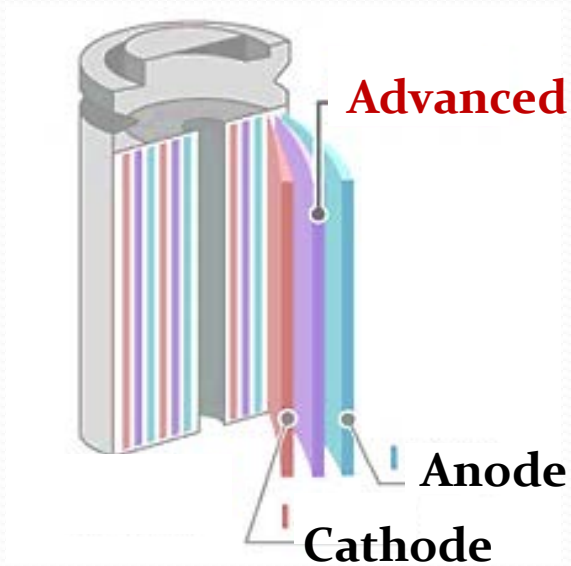
Problem: Poor Battery Performance

- Li-ion batteries are reaching a performance plateau
- Energy-dense & safe battery technologies are needed
- Most solutions require expensive retooling of existing manufacturing



Solution: Our Ion-Selective Polymer Membranes

Li-ion Cell



Improved

- ✓ Safety
- ✓ Energy density
- ✓ Cost





D U R A B L Y W A T E R P R O O F

Guaranteed
To Keep You Dry

GORE-TEX[®]
fabrics



Lithium ion Battery Membranes

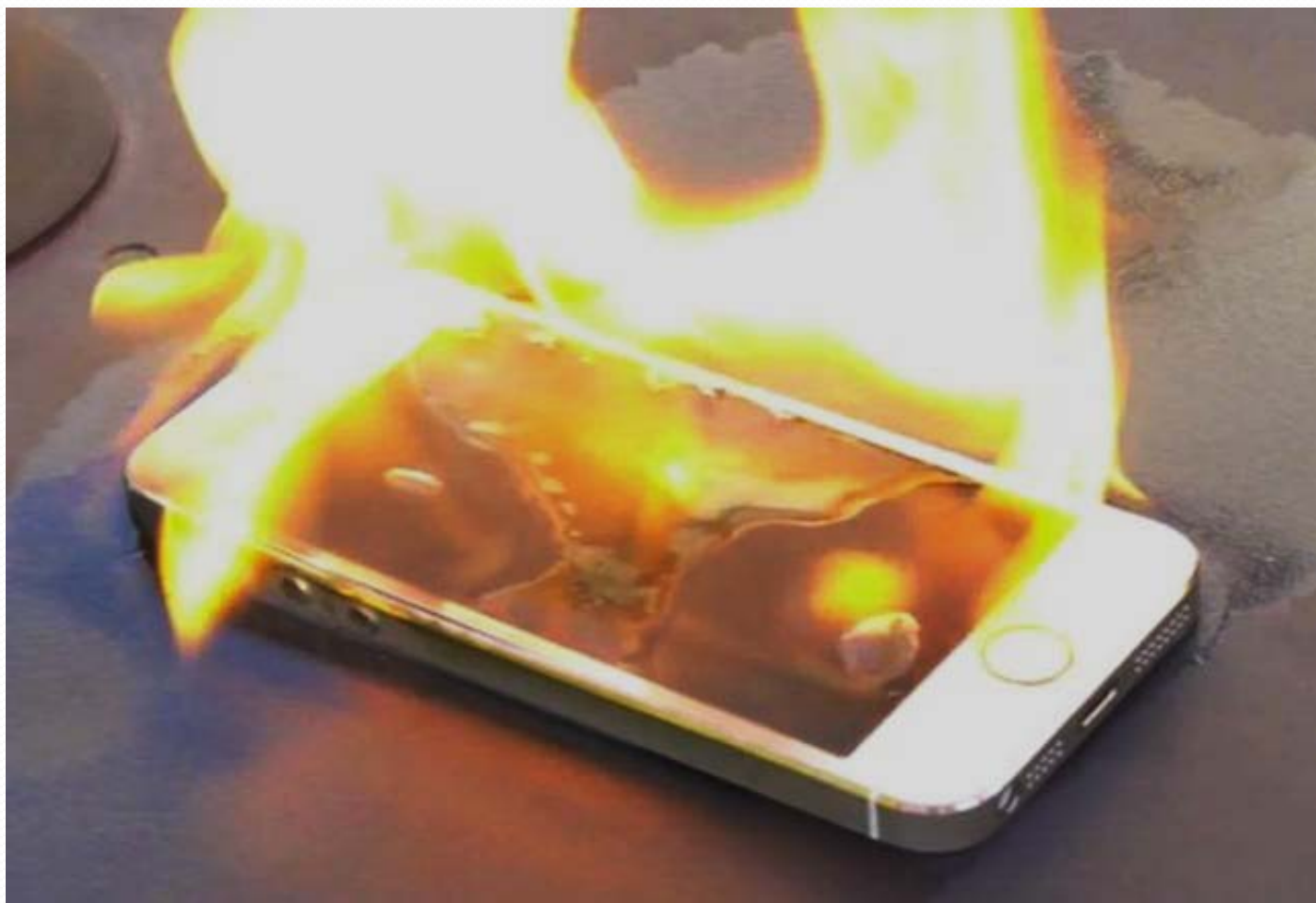


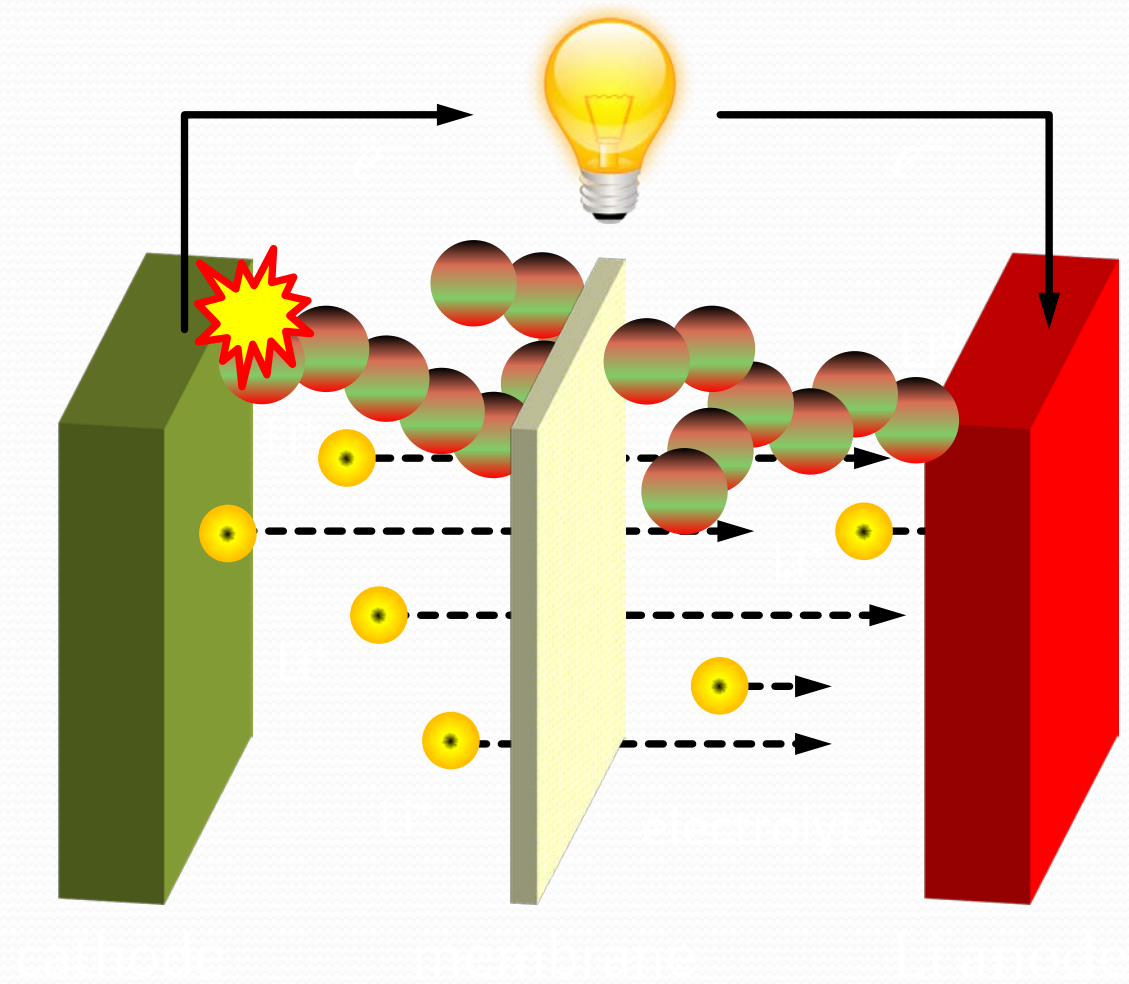
membrane market

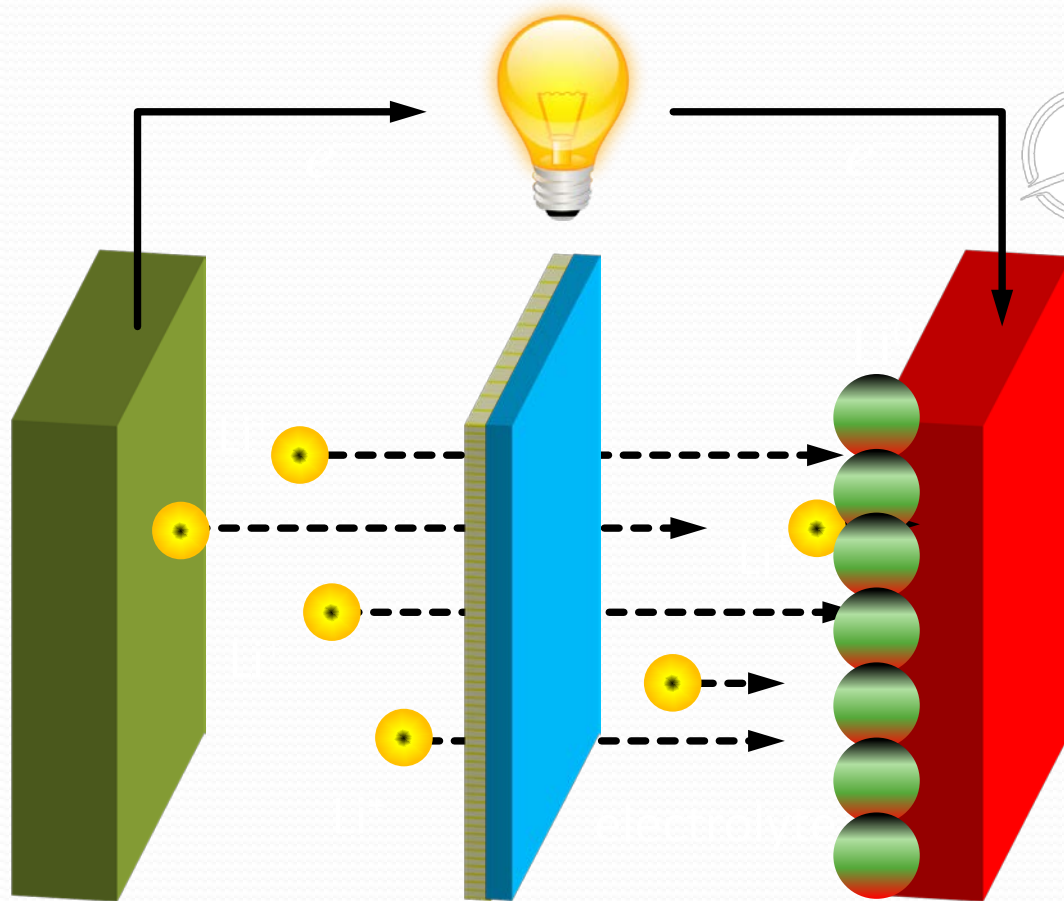
11 billion ft²

\$1.5 billion









cathode Separator membrane Anode

30% Energy Density Boost

Li Metal

1.4 μm



Sepion Membrane

Separator

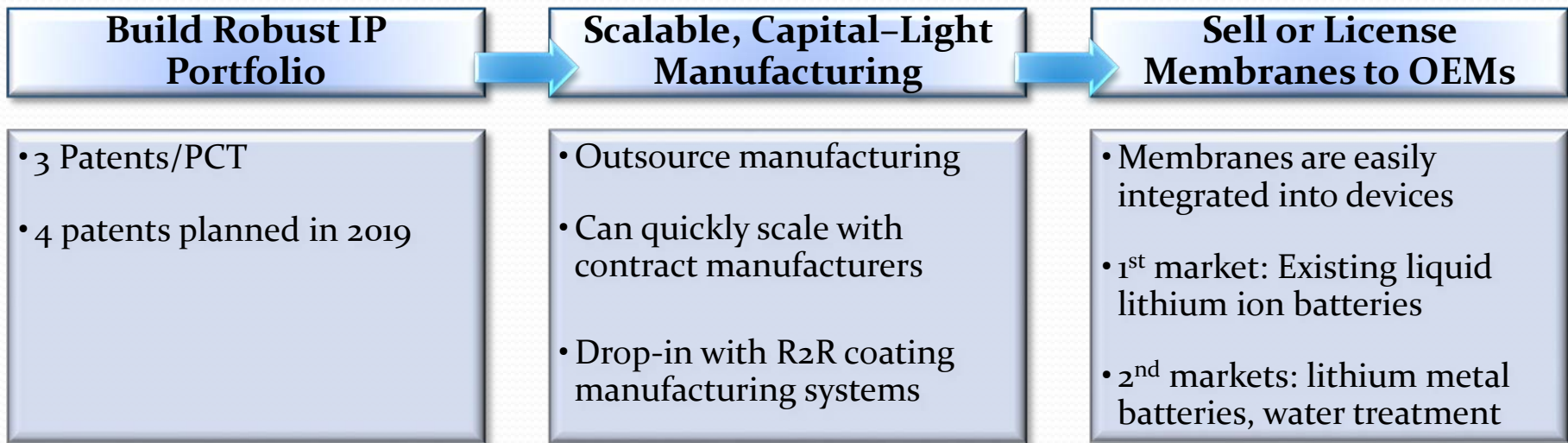
(in use today)

- Safe
- 300+ mile EV range
- Lower EV \$\$\$

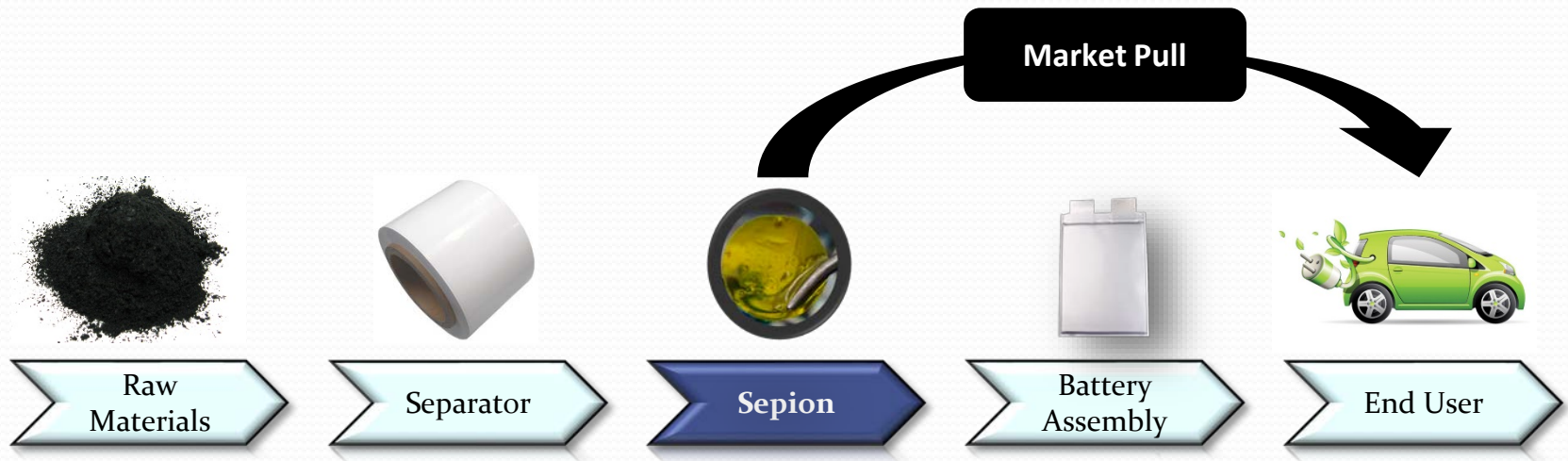
Gigafactory Compatible



Business Model

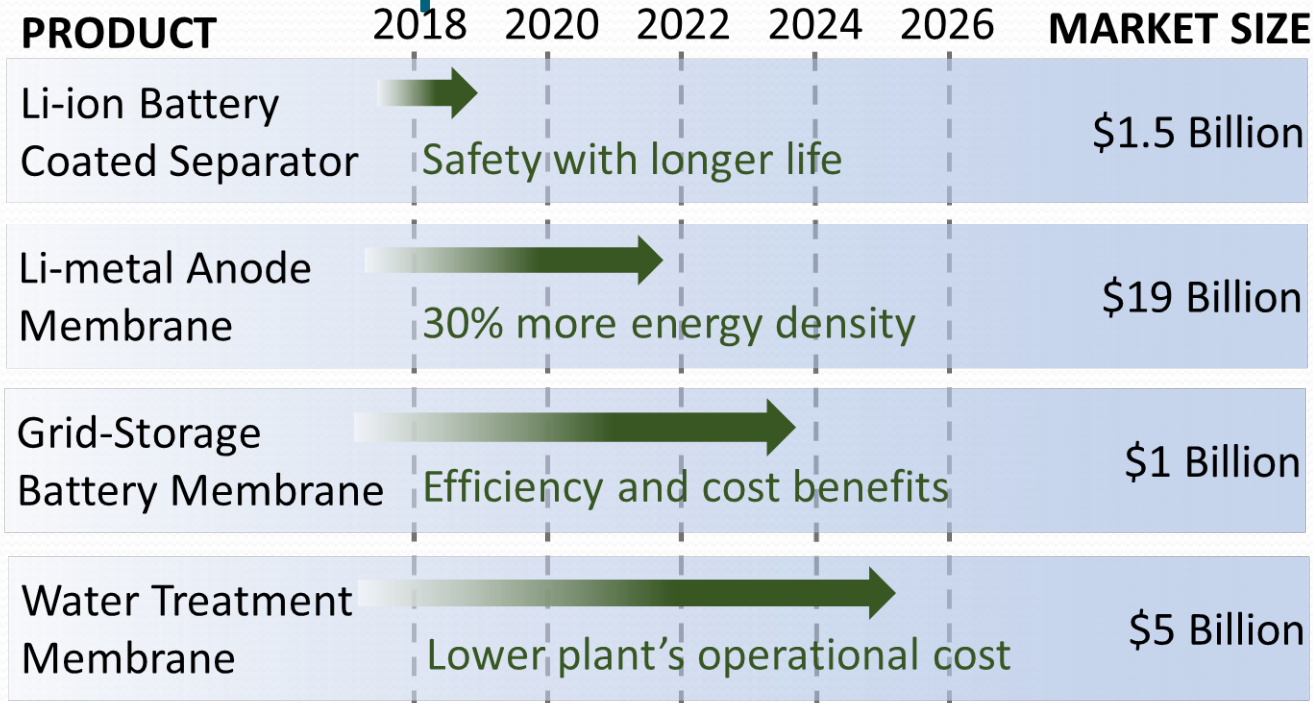


Traction and Go-to-Market Strategy



Currently raising capital for a pilot coating line in CA

Sepion's Platform Product Roadmap



Monetize through direct engagement, licensing, or partnership opportunities



CA – America's Future EV Battery

Supplier?

- Biggest US market for EV and Grid batteries
- Global leader in progressive electrification policy
- Rising support for hardtech energy-

focus
track

CalSEED



cyclotronroad



arpa-e

CHANGING WHAT'S POSSIBLE



CALIFORNIA
ENERGY
COMMISSION



MOLECULAR
FOUNDRY



Imagine If...



...EVs drove 350 mi *on one charge*

...Smart phones lasted 30 hours *on one charge*

...e-bikes and scooters had 30% more range *on one charge*

We will make this possible



We're selling advanced membranes

We're capital light

We're targeting high growth markets

Peter Frischmann, CEO & Co-Founder
pete@sepiontechnologies.com, (208)-406-9888



Connecting New Technology Solutions to California's Underserved Communities

Moderator: **Erik Stokes**

Presenters: **Kathryn Collins, Thomas Jensen, Laura Vogel**



CALIFORNIA ENERGY INNOVATION EXCHANGE

CONNECTING NEW TECHNOLOGY SOLUTIONS
TO CALIFORNIA'S UNDERSERVED COMMUNITIES

FEBRUARY 19, 2019



NAVIGANT

Agenda

- | | |
|---------------|------------------------------|
| PART 1 | Introduction to the Platform |
| PART 2 | Platform Demonstration |
| PART 3 | Joining and Getting Involved |

What is the Platform?

A place for community-based organizations, local governments, researchers, startups, investors, and others to make connections, find cleantech project and funding opportunities, share news, and highlight resources that strengthen the innovation ecosystem.

- ✓ Founded in California
- ✓ An initiative of the California Energy Commission
- ✓ Open to the public and actively managed/curated
- ✓ Hosted on a powerful innovation platform tool

COMMUNITY

A trusted place to connect, share information and experiences, and find new partners

PROJECTS

A repository of cleantech demonstration project sites and related organizations and companies

RESOURCES & TOOLS

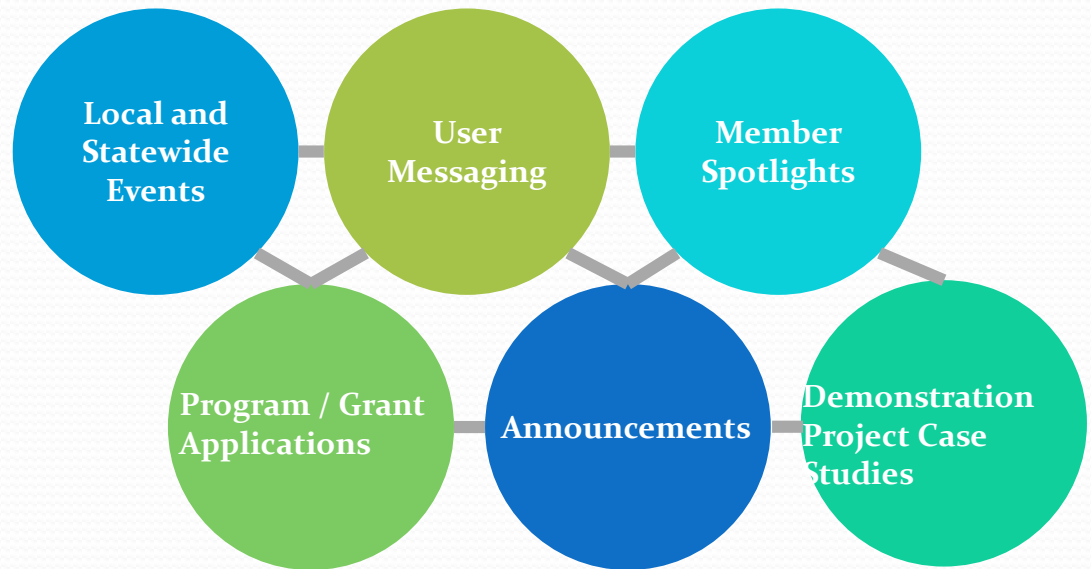
A curated collection of funding sources, resource libraries, tools, and databases

What is the Platform?

The platform is intended to facilitate connections between people. Users will find project partners, resources, and opportunities through their exploration of the community and based on trusted referrals.

COMMUNITY:

Local Governments
Community-Based Organizations
Startups
Startup Supporters
Entrepreneurs
Mentors
Investors



What is the Platform?

Our partners provide leadership, support, resources, and marketing for the platform. In return, the platform offers partners a powerful channel to promote themselves and their community.

INITIAL SET OF PARTNERS:

Our earliest partners serve cleantech entrepreneurs and startups.

We welcome additional partners serving other communities!



cyclotronroad



SOUTHERN CALIFORNIA
**ENERGY INNOVATION
NETWORK**
Imperial | Riverside | San Bernardino | San Diego



What is the Platform?

The platform collects and promotes resources for the community. Examples:

- ✓ Local governments seeking cleantech grants and requests for proposals
- ✓ Researchers seeking pilot sites and technology providers for grant opportunities
- ✓ Community-based organizations, cities, and counties looking to partner with technology developers

FUTURE RESOURCES & TOOLS:



Funding Sources will include postings for both grant funding sources (Federal, State, university, and private non-equity opportunities) and venture funding sources (e.g., accelerator funds, angel funds, and seed funds).

Resource Libraries will contain market research, articles, videos, and other content created or curated around a theme.

Tools will include guides, kits, and templates to help startups build their ideas and business while identifying gaps in knowledge.

Databases will bring together outside sources with extensive information on startups, investors, and other members of the broader community.

The Platform & Underserved Communities

The platform welcomes all types of technology seekers, including community-based organizations supporting disadvantaged communities, to find and share opportunities to pilot the newest cleantech solutions.

EXAMPLE: A community-based organization sees a research funding opportunity for microgrids.

The community-based organization finds a microgrid development partner on the site and sends a message about building a project team to build a microgrid for a local community center.



Image source: <http://microgridprojects.com/microgrid/blue->

The following demonstration shows several actions the community-based organization could take to pursue an opportunity on the platform.



PART 2: PLATFORM DEMONSTRATION



PART 3: JOINING AND GETTING INVOLVED

Joining & GETTING INVOLVED

- Provide comments to the Navigant / iCatalysts team directly (contact information on the final slide)
- Join our launch list or request a demo at:
<https://www.icatalysts.org/joincleantechportal/>
- Join the EPIC listserv to stay informed of the launch
- After launch:
 - Add your personal profile to the Platform
 - Add your organization to the Platform

**We want to hear from
local governments and
community-based
organizations about
needs and priorities for
the platform**



QUESTIONS?

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Senior Consultant

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EPIC

SYMPOSIUM

Final Breakout Sessions Beginning at 3:45pm

Please refer to <https://www.energy.ca.gov/calendar/index.php?eID=3183>
for WebEx information

